

Appendix B

Federal Aviation Administration Goal Matrix

1. **Department of Transportation (DOT) Goal: Safety:** Promote the public health and safety by working toward the elimination of transportation-related deaths and injuries.

- 1.1. **Federal Aviation Administration (FAA) Goal: Safety:** Reduce fatal aviation accident rates by 80 percent in 10 years.

Strategies to Achieve FAA Goals:

Accident Prevention: Prevent accidents before they happen through appropriate, targeted, systematic interventions in the aviation system.

Safety Information Sharing and Analysis: Develop partnerships with the aviation community to share data and information supporting safe, secure aviation.

Certification and Surveillance: Develop new approaches to working with others on certification, inspection, and surveillance, and target FAA resources.

FAA Annual Performance Goals:

- 1.1.1 **Air Carrier Fatal Aircraft Rate** – Reduce the fatal aviation accident rate for commercial air carriers from a 1994-1996 baseline of 0.051 fatal accidents per 100,000 departures. The Fiscal Year (FY) 2003 target is 0.033 per 100,000 departures—with the reduction to be achieved in six key areas outlined in the Safer Skies Agenda.
 - 1.1.2 **General Aviation (GA) Fatal Aircraft Rate** – By 2007, reduce the GA fatal accidents by an amount that results in a 20 percent improvement from the projected total for that year. Assuming a 1.6 percent annual growth in activity, the annual number of GA fatal accidents is projected to grow from the three-year baseline of 379 for 1996 through 1998 to 437 in 2007. The FY 2003 target is 374.
 - 1.1.3 **Operational Errors** – Reduce operational errors per one million activities. The FY 2003 goal is no more than 6.5 per million.
 - 1.1.4 **Runway Incursions** – Reduce the number and rate (per 100,000 operations) of runway incursions. The FY 2003 goal is no more than 56 runway incursions per 0.08 of 100,000 operations.

2. **DOT Goal: Mobility:** Shape an accessible, affordable, reliable transportation system for all people, goods, and regions.

- 2.1. **FAA Goal: System Efficiency:** Provide an aerospace transportation system that meets the needs of users and is efficient in the application of FAA and aerospace resources.

Strategies to Achieve FAA Goals:

Free Flight: Within safety and environmental considerations, work toward giving aircraft the opportunity to fly in a way that gives them the most benefit as they define it.

National Airspace System (NAS) Modernization: Using the NAS Architecture as the guideline, continually refine and update the NAS to achieve efficient aerospace systems and operations.

Systems Integration: Integrate airport and commercial space requirements into NAS planning and architecture.

FAA Annual Performance Goals:

- 2.1.1. **Flight Route Flexibility**
--Attain a cumulative increase in throughput during peak periods at certain major airports. FY 2002 goal is a 3.8 percent increase from the FY 2000. (FY 2003 percentage is to be determined)

--Attain a cumulative increase in direct routings for the en route flight phase. FY 2002 goal is a 7.6 percent increase over the FY 2000 baseline. (FY 2003 percentage is to be determined)

2.1.2. **Aviation Delays** – Reduce aviation delays to no more than 171 per 100,000 activities.

2.1.3. **Runway Pavement Condition** – Maintain the percent of runways in good or fair condition (commercial service and selected GA airports). FY 2002 goal is at least 95 percent of runways. (FY 2003 deletes this goal)

2.1.4. **All Weather Access to Airports** – Increase the number of runways that are accessible in low visibility conditions. FY 2003 goal is at least 1,624 runways.

2.1.5. **Operational Efficiency and Effectiveness** – Provide services at a lower cost without reducing availability of facilities, infrastructure or equipment (the target level of performance for this goal has not been defined by the Office of the Secretary of Transportation (OST)/FAA).

3. **DOT Goal: Economic Growth:** Support a transportation system that sustains America's economic growth.

3.1. **FAA Goal: Economic Growth:** FAA also supports this DOT goal through its system efficiency goal that ensures a safe, secure aerospace system that is efficient for users.

Strategies to Achieve FAA Goals: See FAA Goal: System Efficiency: Strategies to Achieve FAA Goals

FAA Annual Performance Goals:

3.1.1. See FAA Goal: System Efficiency: FAA Annual Performance Goals

4. **DOT Goal: Human and Natural Environment:** Protect and enhance communities and the natural environment affected by transportation.

4.1. **FAA Goal: Human and Natural Environment:** Maintain the number of people exposed to aircraft noise at current levels despite increasing operations.

Strategies to Achieve FAA Human and Natural Environment Goals:

Understanding Aerospace Environmental Impacts: Participate in research to understand more fully the effect of aerospace on the atmosphere and the degree of regulation necessary to minimize those impacts.

Reducing Aerospace Environmental Impacts: Use combinations of regulations, research, technology, and procedures to reduce and mitigate adverse impacts from the aerospace.

Quantifying and Mitigating Environmental Impacts of FAA activities: Assess compliance with environmental regulations; honor the mandates to clean up contamination in accordance with existing agreements; reduce the use of hazardous materials at its facilities; and promote recycling.

FAA Annual Performance Goals:

4.1.1. **Aircraft Noise Exposure** – Reduce the number of people in the United States exposed to significant aircraft noise by at least 64 percent from the 1995 baseline of 1.7 million. The FY 2003 target is to be determined.

5. **DOT Goal: National Security:** Ensure the security of the transportation system for the movement of people and goods, and support the National Security Strategy.

- 5.1. **FAA Goal: National Security:** Prevent security incidents in the aviation system.

Strategies to Achieve FAA National Security Goals:

Security Baseline: Continue to improve the baseline security system for civil aviation and address vulnerabilities that may remain.

Information Security: Develop and implement a comprehensive information system security (ISS) program and security activities to protect the national airspace and mission support systems.

FAA Annual Performance Goals:

- 5.1.1 **Explosive Device and Weapons Detection** – Increase the detection rate for explosives and weapons that may be brought aboard an aircraft. The detection rates are sensitive information protected under Code of Federal Regulations (CFR) Part 191.
- 5.1.2 **Information Security** – Develop and implement a comprehensive ISS program and security activities to protect the national airspace and mission support systems.

6. **DOT Goal: Organizational Excellence:** Advance the Department’s ability to manage for results and innovation.

- 6.1 **FAA Goal: People:** Prepare the workforce for the demands of the 21st century.

Reform: Become more businesslike while increasing customer responsiveness.

Strategies to Achieve FAA Goals:

People: Implement a model work environment, a productive and hospitable work environment, where employees can develop to their potential and contribute fully to the organization. Contributions of all employees are supported and encouraged; discrimination and harassment have been eliminated; and the nation’s diversity is reflected.

Acquisition Reform: Reform acquisition processes to make them faster, simpler, and more mission-based.

Personnel Reform: Reform personnel systems to provide increased flexibility in hiring, pay, and placement; protect employee rights; increase productivity; promote high standards of accountability; enhance the agency’s intellectual capital; and create incentives for change.

Financial Reform: Reform financial systems to enable a more performance-based management approach.

FAA Annual Performance Goals:

- 6.1.1 **Customer satisfaction** – Gain positive feedback from stakeholders.
- 6.1.2 **People** – Continue to build a model work environment.
- 6.1.3 **Financial Responsibility** – Achieve a clean audit and further improve agency accountability by implementing core financial systems.

Format of Appendix B

The sections of this appendix will present multiple Facilities and Equipment (F&E) projects organized into the following format:

Category Number: Budget Line Item (BLI) Number; BLI Name;

- Capital Investment Plan (CIP) Project Name #1
- CIP Project Name #2

Appendix B Format Legend

Budget Category and Line Item



Category 1: 1C01; Advanced Technology Development and Prototyping;

**Primary and Secondary Goals
the Program Supports**

Primary Goal (s): 1.1/1.1.4

Secondary Goal(s): n/a

Program Name and Outcome Description	FY2001 Program Accomplishments/Status Performance Output Goals
Runway Incursion Reduction Program (RIRP) – Advanced Technology Development and Prototyping (ATDP). Reduce the number and rate of runway incursions and improve surface safety at NAS airports through research, development, demonstration, and evaluation of new and emerging methods, procedures, and technologies.	<ul style="list-style-type: none"> Awarded 6 contracts to evaluate and demonstrate emerging technologies for reducing runway incursions under the Surface Technology Broad Agency Announcement (BAA). Completed the technical assessment of microwave motion sensors at Eppley Airport.

Program Title and Outcome Goal Description

FY 2001 Accomplishments

Program Plan FY2002 Performance Output Goals	Program Plan FY2003 Performance Output Goals	Key Events FY2004-2007 Performance Output Goals
<ul style="list-style-type: none"> Complete the operational evaluation of microwave motion sensors integrated with the pavement light-emitting diode (LED) light strip at Eppley Airport. Conduct testing of runway status lights (RWSL) data fusion and safety logic subsystems. Complete site surveys at 14 high runway incursion non-ASDE airports. 	<ul style="list-style-type: none"> Continue research on potential technology solutions for small - to medium - sized airports. Complete the technical and operational evaluation of RWSL Program. Develop performance standards/requirements for selected runway incursion reduction technologies. 	<ul style="list-style-type: none"> Continue research on potential technology solutions for small - to medium - sized airports. Continue the development of performance standards/requirements for selected runway incursion reduction technologies.

**Ongoing Activities Planned
for this Fiscal Year**

Planned 2003 Activities

**Key Events Based on Expected
Fiscal Year 2003 Funding**

Category 1: Improve Aviation Safety

Category 1: 1A01; Terminal Business Unit: 1A01A; Next Generation Weather Radar – Provide;

- Next Generation Weather Radar – Open Systems Upgrade
- Medium-Intensity Airport Weather System

Primary Goal: 1.1/1.1.1, 1.1.2

Secondary Goal(s): 2.1/2.1.1, 2.1.2

Program Name and Outcome Goal	FY2001 Program Accomplishments/Status Performance Output Goals
Next Generation Weather Radar (NEXRAD) Programs. Improve the NAS safety through better detection and characterization of hazardous weather phenomena, which is achieved by technology upgrades to the NEXRAD systems, and implementation of medium intensity airport weather system (MIAWS) to airports with limited wind shear detection capabilities. MIAWS will be used to alert air traffic control to the severity, location, movement, and expected duration of hazardous weather phenomena.	<ul style="list-style-type: none"> • Installed new rotary uninterruptible power systems (UPS) at 5 NEXRAD sites. • Obtained approval of MIAWS Initial Requirements Document (IRD).

Program Plan FY2002 Performance Output Goals	Program Plan FY2003 Performance Output Goals	Key Events FY2004-2007 Performance Output Goals
<ul style="list-style-type: none"> • Make the 1st FAA NEXRAD site with the open radar products generator (ORPG) upgrade available for operational use. • Install rotary UPSs at the 5 remaining FAA NEXRAD sites. • Make MIAWS Initial Investment Decision-2a. • Install prototype MIAWS at Little Rock, AR, and Springfield, MO. 	<ul style="list-style-type: none"> • Award production contract to supply 40 airports with MIAWS. 	<ul style="list-style-type: none"> • Complete the last FAA NEXRAD site with the ORPG upgrades for operational use by 2005. • Continue MIAWS installations. • Initiate technical enhancements to MIAWS systems.

Category 1: 1A01; Terminal Business Unit: 1A01B; Terminal Doppler Weather Radar – Provide;

- Terminal Doppler Weather Radar - Product Improvements
- Terminal Doppler Weather Radar - Service Life Extension Program

Primary Goal: 1.1/1.1.1, 1.1.2, 1.1.3

Secondary Goal(s): 2.1/2.1.4

Program Name and Outcome Goal	FY2001 Program Accomplishments/Status Performance Output Goals
Terminal Doppler Weather Radar (TDWR) – Product Improvements and TDWR Service Life Extension Program (SLEP) Programs. Increase aviation safety with the accurate and timely detection of hazardous aviation weather conditions. The primary mission of the TDWR is to enhance the safety of air travel through timely detection and reporting of hazardous wind shear in and near an airport's terminal approach and departure zone by detecting micro burst and gust fronts.	<ul style="list-style-type: none"> • Completed installation of last 2 of 47 systems (Chicago Midway Airport and John F. Kennedy International Airport).

Program Plan FY2002 Performance Output Goals	Program Plan FY2003 Performance Output Goals	Key Events FY2004-2007 Performance Output Goals
<ul style="list-style-type: none"> • Deploy radar products generator rehost upgrade at 30 sites. • Perform last Operational Readiness Date (ORD) of 47 systems. 	<ul style="list-style-type: none"> • Implement technology improvements to update and enhance the 1980s technology of the main computer/processor. • Complete implementation of remaining product improvements, including backup communications. 	<ul style="list-style-type: none"> • Continue to implement major elements of the TDWR SLEP, including elevation bull gear replacement, direct digital controller replacement, antenna motor replacement, and radar data acquisition.

Category 1: 1A01; Terminal Business Unit: 1A01C; Airport Surface Detection Equipment;

Primary Goal: 1.1/1.1.4

Secondary Goal(s): n/a

Program Name and Outcome Goal	FY2001 Program Accomplishments/Status Performance Output Goals
<p>Airport Surface Detection Equipment (ASDE) Model 3 Service Life Extension Program (SLEP). Provide positive ground surveillance and assistance to air traffic controllers in expediting aircraft flow during conditions of restricted visibility. The ASDE-3 radar assists the ground controller in preventing collision situations and provides orderly movement of aircraft and ground vehicles on the airport surface when visibility restrictions prevent controllers, pilots, or vehicle operators from seeing other ground traffic on the airport surface. The SLEP addresses obsolete parts issues and other parts impacting reliability and maintainability. The SLEP activities will ultimately extend the useful life of the ASDE-3 at 34 high activity airports an additional 10 years beyond the original 20-year life cycle to 2015. Mid-life upgrade activities will improve the ability at 34 high-activity airports with the ASDE-3 to integrate its radar output with the ASDE-x processing equipment.</p>	<ul style="list-style-type: none"> • Began SLEP to replace obsolete microprocessor subsystem contained in every cabinet of the ASDE-3 system. • Completed commissioning of all operational (33 of 34) ASDE-3 sites, except Ronald Reagan Washington National Airport. • Initiated Congressionally directed roll ring/slip ring evaluation. • Began activities to relocate the Ronald Reagan Washington National Airport ASDE-3 in compliance with Congressional direction.

Program Plan FY2002 Performance Output Goals	Program Plan FY2003 Performance Output Goals	Key Events FY2004-2007 Performance Output Goals
<ul style="list-style-type: none"> • Continue SLEP. • Purchase and test 80% of obsolete part replacements. • Begin procurement of microprocessor subsystem replacement for obsolete subsystem to increase maintainability. • Submit Congressionally requested roll ring/slip ring report. • Complete an 80/20 cost estimate report for a 6-year projection for obsolete parts requirements. • Complete relocation/reinstallation of the Ronald Reagan Washington National Airport ASDE-3. 	<ul style="list-style-type: none"> • Continue implementation of the SLEP through 2004. • Complete purchase and testing of obsolete part replacements and deliver to depot. • Continue procurement of microprocessor subsystem replacement hardware and install at ten ASDE-3 sites. • Design upgraded receiver hardware with an ASDE-x interface. 	<ul style="list-style-type: none"> • Continue implementation of the SLEP through 2004. • Continue procurement of microprocessor subsystem replacement hardware and install at ASDE-3 sites as funding authority becomes available.

Category 1: 1A01; Terminal Business Unit: 1A01D; Airport Movement Area Safety System;

Primary Goal: 1.1/1.1.4

Secondary Goal(s): n/a

Program Name and Outcome Goal	FY2001 Program Accomplishments/Status Performance Output Goals
Airport Movement Area Safety System (AMASS). Improve system safety at 34 high activity airports through the use of AMASS's automated visual and aural alarm alerts and warnings provided as an enhancement to the ASDE-3. The enhancements aid in the prevention of accidents resulting from runway incursions and other accidents.	<ul style="list-style-type: none"> Delivered the 40th of 40 systems. Completed independent operational test and evaluation (IOT&E). Completed operational suitability demonstrations and commissioning into the NAS, the San Francisco International Airport, and the Detroit Metropolitan Wayne County Airport systems.

Program Plan FY2002 Performance Output Goals	Program Plan FY2003 Performance Output Goals	Key Events FY2004-2007 Performance Output Goals
<ul style="list-style-type: none"> Complete test and acceptance of software build 5, which will resolve remaining human factors open issues and improve overall system performance. Install 26 remote audio amplifier modifications, which will complete the final hardware installations required for commissionings. Install 40 computer access panel modifications, which will close out an IOT&E open item. Start the operational suitability demonstrations at 18 additional sites. 	<ul style="list-style-type: none"> Develop and implement the ASDE-x interface. Start the operational suitability demonstrations at 12 additional sites. 	<ul style="list-style-type: none"> Start the operational suitability demonstrations at the last 3 sites.

Category 1: 1A01; Terminal Business Unit: 1A01E; Weather Systems Processor;

Primary Goal: 1.1/1.1.1, 1.1.2, 1.1.3

Secondary Goal(s): 2.1/2.1.4

Program Name and Outcome Goal	FY2001 Program Accomplishments/Status Performance Output Goals
Airport Surveillance Radar (ASR) Weather Systems Processor (WSP). Improve aviation safety by providing air traffic controllers with warnings of wind shear and microburst events for immediate issue to pilots. The WSP, a low cost alternative to TDWR, provides hazardous weather situational awareness between tower and terminal radar approach control (TRACON) personnel, including prediction of gust fronts and storm cell motion that will allow improved runway reconfiguration in advance of future wind shifts.	<ul style="list-style-type: none"> Commenced deployment of 1st of 32 systems.

Program Plan FY2002 Performance Output Goals	Program Plan FY2003 Performance Output Goals	Key Events FY2004-2007 Performance Output Goals
<ul style="list-style-type: none"> Complete delivery of 26 systems. 	<ul style="list-style-type: none"> Complete deployment and commissioning of all 37 systems. 	<ul style="list-style-type: none"> Address WSP SLEP efforts during Phase IIB of ASR-9 SLEP.

Category 1: 1A01; Terminal Business Unit: 1A01F; Airport Surface Detection Equipment – Model x;

Primary Goal: 1.1/1.1.4

Secondary Goal(s): n/a

Program Name and Outcome Goal	FY2001 Program Accomplishments/Status Performance Output Goals
Airport Surface Detection Equipment (ASDE) Model x. Improve safety on the airport surface by preventing accidents resulting from runway incursions. The ASDE-x system will provide detailed coverage of runways and taxiways, and will alert air traffic controllers, both aurally and visually, to potential collisions. Runway collision risks will be reduced because controllers will be provided with improved situational awareness, which will ultimately improve the safety of the nation's runways.	<ul style="list-style-type: none"> • Completed system requirements review (SRR) as scheduled. • Completed preliminary design review (PDR) as scheduled. • Completed critical design review (CDR) as scheduled. • Completed both radio frequency (RF) site surveys and final site surveys at key site in Milwaukee, WI. • Procured an ASDE-x interim contractor depot level support (ICDLS) system to provide a realistic test environment.

Program Plan FY2002 Performance Output Goals	Program Plan FY2003 Performance Output Goals	Key Events FY2004-2007 Performance Output Goals
<ul style="list-style-type: none"> • Install ICDLS system at Hancock Airport in Syracuse, NY. • Deliver and install system to key site (Milwaukee, WI, is the Key Site and Orlando, FL, is the alternate Key Site). • Complete software coding, integration, and testing. • Complete factory acceptance testing (FAT). 	<ul style="list-style-type: none"> • Complete site acceptance testing (SAT). • Complete operational testing (OT). • Complete initial operating capability (IOC) at key site(s). • Complete final design review (FDR). • Complete in-service decision. • Complete IOT&E. • Achieve ORD at key site in Milwaukee, WI. • Deliver and install 4 sites out of 26 sites. 	<ul style="list-style-type: none"> • Deliver safety logic system enhancement at 23rd delivery site. • Deliver and install 20 sites out of 26 sites. • Achieve ORD at 24 sites out of 26 sites.

Category 1: 1A02; Aviation Weather Service Improvements;

- **Integrated Terminal Weather System – Development/Procurement**
- **Integrated Terminal Weather System – Corridor Integrated Weather System**

Primary Goal: 1.1

Secondary Goal(s): n/a

Program Name and Outcome Goal	FY2001 Program Accomplishments/Status Performance Output Goals
Integrated Terminal Weather System (ITWS) Programs. Improve safety by the detection, forecasting, processing, and delivery of aviation weather information to pilots, airlines operations centers (AOC), and controllers. ITWS provides terminal aviation weather data and integrated products from other sensors, including TDWR, NEXRAD, low level wind shear alert system (LLWAS), and automated surface observing system (ASOS). ITWS will cover 47 high-activity airports that have significant convective weather.	<ul style="list-style-type: none"> • Delivered First Article systems. • Continued to develop advanced terminal weather algorithms and display capabilities. • Began full-scale development, training, maintenance, and testing of software and algorithms; developed test cases and test data to support system level testing. • Included hardware upgrades, transfer protocol Transmission Control Protocol (TCP)/Internet Protocol (IP), adaptation data tool, and on-site test tool in Block 0 production system.

Program Plan FY2002 Performance Output Goals	Program Plan FY2003 Performance Output Goals	Key Events FY2004-2007 Performance Output Goals
<ul style="list-style-type: none"> • Procure 24 production systems, deliver 4 production systems, and begin installation. • Conduct IOT&E and information security certification. • Continue to operate prototypes. • Conduct demonstration/validation of corridor integrated weather systems (CIWS) with additional sensor input. 	<ul style="list-style-type: none"> • Procure 13 production systems, deliver 24 production systems, and continue installation. • Conduct acceptance testing, continue algorithm support, and conduct IOT&E and information security certification on production upgrade. • Continue to operate prototypes. 	<ul style="list-style-type: none"> • Complete production/development efforts. • Begin to implement advanced capability upgrades. • Replace prototypes with production systems.

Category 1: 1A03; Low Level Wind Shear Alert System – Upgrade;

- **Low Level Wind Shear Alert System – Upgrade Low Level Wind Shear Alert System to Expanded Network Configuration**
- **Low Level Wind Shear Alert System – Disposal/Decommissioning of Low Level Wind Shear Alert System Model 2**

Primary Goal: 1.1/1.1.2

Secondary Goal(s): n/a

Program Name and Outcome Goal	FY2001 Program Accomplishments/Status Performance Output Goals
Low Level Wind Shear Alert System (LLWAS) Programs. Monitor the airport area and alert pilots through the air traffic controllers when hazardous wind shear conditions are detected. Severe wind shear/microburst conditions occurring at low altitude near airports can pose a significant threat to aircraft during takeoff or landing. Wind shear conditions are common in the United States, especially in areas where thunderstorms are frequent.	<ul style="list-style-type: none"> • Delivered the LLWAS–relocation/sustain system to the Academy, Oklahoma City, OK, April 2001. • Completed operational test and evaluation (OT&E) in June 2001. • Completed the Functional Configuration Audit (FCA) and Physical Configuration Audit (PCA) in August 2001.

Program Plan FY2002 Performance Output Goals	Program Plan FY2003 Performance Output Goals	Key Events FY2004-2007 Performance Output Goals
<ul style="list-style-type: none"> • Deliver 8 LLWAS sustainment systems. • Make production decision. • Make in-service decision. • Complete 1st ORD. • Upgrade 9 network expansion sites to network expansion++ sustainment configuration. 	<ul style="list-style-type: none"> • Deliver remaining 25 LLWASs. 	<ul style="list-style-type: none"> • Establish depot for logistics support. • Complete Last Site Acceptance Test. • Achieve last ORD. • Transition to operations (Operational Support Service (AOS) 250).

Category 1: 1A04; Aviation Safety Analysis System;
(A) Aviation Safety Analysis System
(B) System Approach for Safety Oversight

(A) Aviation Safety Analysis System

Primary Goal: 1.1 **Secondary Goal(s): n/a**

Program Name and Outcome Goal	FY2001 Program Accomplishments/Status Performance Output Goals
<p>Aviation Safety Analysis System (ASAS). Improve aviation safety and security through enhanced effectiveness in safety and security regulation and oversight of the civil aviation industry by improving the automation safety and security subsystems and tools that are essential for the safety and security work forces to accomplish their responsibilities. Provide information technology (IT) infrastructure and develop systems to facilitate partnerships with the aviation community to share data and information supporting safe and secure aviation. The infrastructure and systems provide the tools to enhance the effectiveness of FAA's certification, inspection, and surveillance responsibilities in areas of safety and security in civil aviation.</p>	<ul style="list-style-type: none"> • Completed document imaging workflow subsystem (DIWS) Phase IV enhancements: completed application development; analyzed and designed Airman Medical Examiner (AME) internet data transmission; acquired and implemented storage equipment; designed and developed "Decision Support Database" for analysis of trends to facilitate improved decision making for regulatory and procedural changes; implemented required security modifications; completed airport/air carrier information reporting system (AAIRS)/system development; completed infrastructure development and upgrades; completed hardware and software replacement/upgrades; developed aviation security data repository; and completed system documentation. • Completed formal acceptance, enhancements, and code reconciliation of Airmen Certification and Rating Application (ACRA). • Enhanced, upgraded, supported, and conducted initial training of operations specifications subsystem (OPSS). • Completed requirements document for facilities database (corporate repository). • Enhanced certificate management system; completed requirements document. • Acquired desktop personal computers (PC), laptops, and communication equipment. • Implemented integrated rulemaking information system (IRMIS)/updated CyberDocs; converted automated exemption system (version 1.1) from mainframe to web-based application; awarded contract for design engineers and manager. • Completed Phase II development of parts reporting system (PRS) to include web-based technology; deployed database nationally. • Completed development of information system for industry criminal records checks.

Program Plan FY2002 Performance Output Goals	Program Plan FY2003 Performance Output Goals	Key Events FY2004-2007 Performance Output Goals
<ul style="list-style-type: none"> • Complete accident investigation quality assurance system upgrade; continue accident investigation duty room system upgrade; complete DIWS implementation of AME Internet data transmission; perform administration and compliance tracking in an integrated office network subsystem (ACTIONS)—reengineer and integrate the compliance assessment reporting system (CARS). • Complete development, test, and begin deployment of aircraft certification systems evaluation program (ACSEP). • Create databases for Airworthiness Directive Notices of Proposed Rulemaking, final and special conditions (corporate repository). • Fulfill hardware requirements for national deployment (PRS). Implement a limited production OPSS solution with additional air carriers. • Continue deployment of Internet-based ACRA software. • Develop a web-based data collection and analysis system for AIIRS. Develop and implement an information system for background checks. • Initiate development of crisis management system to provide the capability to have up-to-date and immediate access to environmental and incident status information. • Completed joint vulnerability analysis system (JVAS) 1st phase of mechanism for jointly reporting, tracking, and detecting trends. Upgrade to Windows 2000. 	<ul style="list-style-type: none"> • Complete DRS upgrade; initiate NTSB Recommendations System (NRS) upgrade. • Perform DIWS-application enhancements ACTIONS; continue application enhancements. • Perform additional modifications (AAIRS) for recording assessments performed under the revised rules for checked baggage and additional modules for screening arrests and foreign assessments. • Deploy ACRA along with enhancements and database integration with other FAA systems. • Complete deployment of ACSEP; corporate repository/complete deployment of corporate repository 1st phase of project activity file (PAF). • Develop and web-enable CARs, joint aviation regulation (JAR), and Special Federal Air Regulation (SFAR) databases. • Complete requirements document for e-commerce for enhanced certificate management system. • Acquire desktop PCs, laptops, servers, licenses, lab support, and communication equipment. • Convert automated federal regulations (AFAR) from mainframe to web-based (IRMIS). • Continue deployment to air carriers and repair stations and provide security and performance enhancements (OPSS). • Continue to develop enhancements in the in the facility security reporting system (FSRS), the fingerprinting processing system (FPS), the crisis management system, and the JVAS. 	<ul style="list-style-type: none"> • Complete NRS upgrade; initiate accident investigation system consolidation. DIWS/Phases VII and VIII planned enhancements: application development; implementation of telecommunications capabilities; acquisition and implementation of improved viewing equipment; and implementation of airman access to status information. • Continue application development and planned enhancements for ACTIONS. • Complete AAIRS/system development-additional modules; aviation security data repository technical remote support operational systems. • Complete design documents for corporate repository 2nd phase of PAF and electronic data interchange with industry; deploy multimedia capabilities within corporate repository. • Continue adding safety related documents to web for public access. • Complete deployment for enhanced certificate management system. • Continue development and implementation of medical knowledge database and statistical and trending reporting capabilities (covered position decision support subsystem (CPDSS)). • Continue 3 to 4-year cycle of upgrade/enhancement/replacement of old technology workstations, servers, laptops, printers, software, operating systems, etc. • Continue additional modules for the FPS; continue system expansion for the crisis management system; continue the implementation of JVAS.

(B) System Approach for Safety Oversight**Primary Goal: 1.1/1.1.1****Secondary Goal(s): n/a**

Program Name and Outcome Goal	FY2001 Program Accomplishments/Status Performance Output Goals
System Approach for Safety Oversight (SASO). Improve safety by implementing new approaches to certification, inspection, and surveillance activities with the integration of Flight Standards Service (AFS) tools and databases. This system will provide a comprehensive set of analytical tools to allow targeted inspections and actions in areas of highest potential vulnerability and probability of hazard.	<ul style="list-style-type: none">• n/a

Program Plan FY2002 Performance Output Goals	Program Plan FY2003 Performance Output Goals	Key Events FY2004-2007 Performance Output Goals
<ul style="list-style-type: none">• n/a	<ul style="list-style-type: none">• n/a	<ul style="list-style-type: none">• Develop system safety business processes.• Develop risk metrics.• Develop supporting analysis/decision tools.• Integrate tools and databases.

Category 1: 1A05; Integrated Flight Quality Assurance System;**Primary Goal: 1.1/1.1.1****Secondary Goal(s): n/a**

Program Name and Outcome Goal	FY2001 Program Accomplishments/Status Performance Output Goals
Integrated Flight Quality Assurance (IFQA) System. Develop and implement electronic capability for collecting and analyzing aggregate digital flight data from airline operations. The IFQA system will develop a secure Internet-based FAA electronic data acquisition and information infrastructure. Implementation will enable the FAA to access airline flight operational quality assurance (FOQA) trend data for NAS oversight purposes, as well as for use in formulating FAA policy and decision making to improve safety.	<ul style="list-style-type: none">• Completed prototype system design.• Achieved operational implementation of prototype IFQA system.• Performed prototype assessment, tests, and evaluation.• Completed CDR process for FAA system topology and ISS implementation.• Procured hardware, software, communication, and ISS infrastructure for initial FAA system installation.

Program Plan FY2002 Performance Output Goals	Program Plan FY2003 Performance Output Goals	Key Events FY2004-2007 Performance Output Goals
<ul style="list-style-type: none">• Continue technical infrastructure design and development to accommodate growth.• Continue OT&E of system.• Develop user, administrator, and system documentation and training materials.• Achieve IOC of IFQA system (support for 10 air carriers).	<ul style="list-style-type: none">• Continue development of hardware, communication, and technical infrastructure to accommodate growth (35 air carriers).• Implement FOQA Training Course at FAA Academy.• Implement web-based training materials and user aids.	<ul style="list-style-type: none">• Achieve 100% development and implementation of maintenance and engineering applications.• Initiate development and implementation of techniques to supply near real-time alerts.• Initiate development and implementation of advanced search and analysis techniques.• Continue design and development of expanded

Program Plan FY2002 Performance Output Goals	Program Plan FY2003 Performance Output Goals	Key Events FY2004-2007 Performance Output Goals
<ul style="list-style-type: none"> • Deploy off-site mirror site and FAA hot backup. • Continue refinement of ISS capability for emerging threats. 	<ul style="list-style-type: none"> • Continue development of statistical indices for airline aggregate data submissions. • Continue design and development of IFQA system data warehouse, data marts, and metadata repository. • Initiate separate FOQA applications for maintenance and engineering purposes. 	<p>IFQA system data warehouse, data marts, and metadata repository.</p> <ul style="list-style-type: none"> • Implement pre-planned product improvements (P3I). • Continue implementation of user aids, documentation, and training materials for P3I releases.

Category 1: 1A06; Safety Performance Analysis System;

Primary Goal: 1.1/1.1.1

Secondary Goal(s): n/a

Program Name and Outcome Goal	FY2001 Program Accomplishments/Status Performance Output Goals
<p>Safety Performance Analysis System (SPAS). Improve safety by providing aviation safety inspectors (ASI) with an automated tool to assist them in targeting critical areas for inspection. This system provides the capability to target certificate holders that pose a greater safety risk and dynamically modify the surveillance work program as a result. It also allows the FAA to monitor the status of aging aircraft, to track the growing number of aircraft operations, and to increase industry accountability for aviation safety.</p>	<ul style="list-style-type: none"> • Completed development of SPAS II. • Completed SPAS enhancement training. • Added Air Operator FAA Oversight (Foreign Flag) Performance Measure. • Added Simulator/Fixed Time Determination (FTD) Discrepancy Performance Measure.

Program Plan FY2002 Performance Output Goals	Program Plan FY2003 Performance Output Goals	Key Events FY2004-2007 Performance Output Goals
<ul style="list-style-type: none"> • Incorporate air transportation oversight system (ATOS) data repository into SPAS. • Include ATOS data in SPAS data arrays, profiles, and query and browse. • Develop and implement repair station risk model. 	<ul style="list-style-type: none"> • Perform enhancements to the system. • Integrate into flight standards business applications. 	<ul style="list-style-type: none"> • n/a

Category 1: 1A07; Performance Enhancement Systems;

Primary Goal: 1.1

Secondary Goal(s): n/a

Program Name and Outcome Goal	FY2001 Program Accomplishments/Status Performance Output Goals
<p>Portable Performance Support System (PPSS). Improve aviation safety by providing ASIs mobile electronic tools to identify and track potential and actual violations of safety standards. These mobile units allow the inspectors to make safety critical decisions while conducting surveillance and certification activities on site.</p>	<ul style="list-style-type: none"> • Began integration of certification, surveillance, and inspection applications. • Developed training materials for flight standards workforce.

Program Plan FY2002 Performance Output Goals	Program Plan FY2003 Performance Output Goals	Key Events FY2004-2007 Performance Output Goals
<ul style="list-style-type: none"> Continue integration of certification, surveillance, and inspection applications and initiatives. Begin deployment of integrated software. Develop plans for integration of new technologies. 	<ul style="list-style-type: none"> Complete deployment of integrated software to flight standards workforce. Conduct training for flight standards workforce. 	<ul style="list-style-type: none"> n/a

Category 1: 1B01; Safe Flight 21;

(A) Safe Flight 21 – Alaska Capstone Initiative

(B) Safe Flight 21 – Ohio Valley Prototype Project

(C) Automatic Dependent Surveillance Broadcast – Advanced Technology Development and Prototyping

(A) Safe Flight 21 – Alaska Capstone Initiative

Primary Goal: 1.1/1.1.1, 1.1.2

Secondary Goal(s): n/a

Program Name and Outcome Goal	FY2001 Program Accomplishments/Status Performance Output Goals
<p>Safe Flight 21 – Alaska Capstone Initiative. Reduce the number and rate of accidents, fatalities, and property damage, and improve aviation safety in Alaska through the integration of interdependent technologies. Capstone provides an improved ground and air infrastructure that furnishes pilots with better information about the location and severity of hazardous weather, proximity to terrain, improved instrument approaches to small airports, and traffic information for the reduction of mid-air collisions. Additionally, Capstone provides improved surveillance information to controllers to assist in sequencing, separation, flight following, and search and rescue (SAR) activities. A more useable instrument flight rules (IFR) infrastructure will be provided to enable lower en route and approach/departure routes.</p>	<ul style="list-style-type: none"> Completed 132 automatic dependent surveillance broadcast (ADS-B) avionics installations in participating aircraft in the Bethel, AK, area. Continued to install ground broadcast transceivers (GBT) in the Bethel, AK. Supported universal access transceiver (UAT) minimum operational performance standard (MOPS) development. Performed micro en route automated radar terminal system (MicroEARTS) capacity modifications to aid in the data collection and validation process as controllers provide key safety services through use of ADS-B. Conducted site survey for multilateration system at Juneau International Airport. Commissioned 9 automated weather-observing systems (AWOS).

Program Plan FY2002 Performance Output Goals	Program Plan FY2003 Performance Output Goals	Key Events FY2004-2007 Performance Output Goals
<ul style="list-style-type: none"> Complete Phase I (Bethel core) hardening and commissioning of GBTs. Purchase 2nd generation ADS-B avionics and begin installation in participating aircraft in southeast Alaska. Install ADS-B display in Bethel Tower to increase controller situational awareness. Obtain Joint Resources Council (JRC) decision to harden Phase I (Bethel core) systems and equipment and obtain operations and maintenance 	<ul style="list-style-type: none"> Complete installation of ADS-B avionics in remaining participating aircraft in southeast Alaska. Based on surveillance requirement and concept of operations, determine surveillance approach (e.g., multilateration, radar, etc.) for Juneau area of southeast Alaska. Establish approach/terminal services at Juneau International Airport. Begin Yukon-Kuskokwim Delta expansion by 	<ul style="list-style-type: none"> Continue expansion of ADS-B ground stations, AWOS, and surveillance approach for southeast Alaska.

Program Plan FY2002 Performance Output Goals	Program Plan FY2003 Performance Output Goals	Key Events FY2004-2007 Performance Output Goals
<p>equipment and obtain operations and maintenance funding.</p> <ul style="list-style-type: none"> • Define surveillance requirements and concept of operations for Juneau area of southeast Alaska. • Demonstrate incorporation of wide area augmentation system (WAAS) technology with Capstone avionics in southeast Alaska. • Begin GBT installation in southeast Alaska. • Install and commission additional AWOSs. 	<p>installing and commissioning ADS-B ground stations and AWOSs.</p>	

(B) Safe Flight 21 – Ohio Valley Prototype Project

Primary Goal: 2.1/2.1.1, 2.1.2

Secondary Goal(s): 1.1/1.1.4

Program Name and Outcome Goal	FY2001 Program Accomplishments/Status Performance Output Goals
<p>Safe Flight 21 – Ohio Valley Prototype Project. Improve flight route flexibility and reduce delays through the use of ADS-B technology to achieve user-preferred routes and to maximize airspace and airport resources. ADS-B will serve as enabling technology for free flight capability in the NAS.</p>	<ul style="list-style-type: none"> • Conducted operational evaluation at Louisville, KY, testing approach spacing and surface moving map display technologies. • Awarded test and evaluation surveillance and information system (TESIS) contracts to 4 avionics manufacturers to steer industry toward specific ADS-B applications (surface and terminal applications). • Awarded contract to modify Common ARTS to display ADS-B target information (in conjunction with Air Traffic Systems Development (AUA)). • Conducted Air Traffic Control Modernization Forum in Memphis, TN, to provide status and demonstrations to industry on ADS-B and low area augmentation system (LAAS) developments. • Received supplemental-type certificate (STC) approval for installation of ADS-B/cockpit display of traffic information (CDTI) on Boeing 757s and 727s for “Enhanced See and Avoid” application (working in conjunction with United Parcel Service Airlines).

Program Plan FY2002 Performance Output Goals	Program Plan FY2003 Performance Output Goals	Key Events FY2004-2007 Performance Output Goals
<ul style="list-style-type: none"> • Complete development of “Call Sign Procedure” using ADS-B for trial use in Louisville, KY. • Complete development of concept of use and business case for “Approach Spacing” and “Enhanced Visual Approach” applications. • Support effort to obtain STC approval for “Surface Moving Map” functionality on those aircraft with CDTI displays (working in 	<ul style="list-style-type: none"> • Obtain NAS Change Proposal (NCP) approval for “Radar-like Separation Services” using ADS-B on Common ARTS. • Continue development for integration of ADS-B and STARS. • Continue activities associated with development and use of procedures for CDTI and “Electronic Flight Rules” in the terminal environment to 	<ul style="list-style-type: none"> • Expand development and feasibility exploration of ADS-B applications in the en route and oceanic domains. • Begin development for integration of ADS-B and en route automation system. • Work to transition “Broadcast Services” for certified use at all ASDE-x locations (in conjunction with the ASDE-x Program).

Program Plan FY2002 Performance Output Goals	Program Plan FY2003 Performance Output Goals	Key Events FY2004-2007 Performance Output Goals
conjunction with United Parcel Services Airlines). <ul style="list-style-type: none"> • Conduct TESIS contracts efforts with avionics vendors to support dual-link interoperability between ADS-B links. • Survey 60 airports in the NAS to build map database in support of “Surface Moving Map” functionality (working in conjunction with National Geodetic Survey). • Conduct testing of “Broadcast Services” using ASDE-x infrastructure. • Begin development for integration of ADS-B and standard terminal automation replacement system (STARS). 	allow descents through marine layers, etc. <ul style="list-style-type: none"> • Complete integration of CDTI and airborne surveillance and separation assurance (ASSA) MOPS into a single document. 	<ul style="list-style-type: none"> • Explore strategies for integration of CDTI functionality into “Glass Cockpit” aircraft.

(C) Automatic Dependent Surveillance Broadcast – Advanced Technology Development and Prototyping

Primary Goal: 1.1/1.1.1, 1.1.2, 1.1.4

Secondary Goal(s): 2.1/2.1.1, 2.1.2

Program Name and Outcome Goal	FY2001 Program Accomplishments/Status Performance Output Goals
Automatic Dependent Surveillance Broadcast (ADS-B) – Advanced Technology Development and Prototyping (ATDP). Improve aviation safety through the development of system standards for ADS-B technology in terminal, en route, and oceanic airspace, as well as on the airport surface. Development of domestic (RTCA) International Civil Aviation Organization (ICAO) ADS-B performance standards through rigorous testing, simulation, and analysis will enhance surveillance for the pilots and controllers and overall system safety.	<ul style="list-style-type: none"> • Completed RTCA ADS-B 1090 megahertz (MHz) MOPS. • Completed RTCA CDTI MOPS for selected ADS-B applications.

Program Plan FY2002 Performance Output Goals	Program Plan FY2003 Performance Output Goals	Key Events FY2004-2007 Performance Output Goals
<ul style="list-style-type: none"> • Complete RTCA UAT MOPS. • Complete RTCA Airborne Separation Assurance Minimum Aviation System Performance Standards (MASPS) for 4 ADS-B applications. • Complete Revision A of ADS-B MASPS. • Complete baseline MASPS for traffic information service broadcast (TIS-B). • Complete Revision A of 1090 MHz ADS-B MOPS. 	<ul style="list-style-type: none"> • Complete baseline RTCA MOPS for airborne surveillance and separation assurance processing (ASSAP). • Complete Revision A of TIS-B MASPS. 	<ul style="list-style-type: none"> • Complete UAT ICAO Standards and Recommended Practices (SARP). • Complete additional revisions of TIS-B MASPS for more ADS-B applications. • Complete additional revisions of Airborne Separation Assurance (ASA) MASPS. • Complete additional revisions of ASSAP MOPS for more ADS-B applications.

Category 1: 1C01; Advanced Technology Development and Prototyping;

- (A) Separation Standards – Advanced Technology Development and Prototyping
- (B) Runway Incursion Reduction Program – Advanced Technology Development and Prototyping
- (C) System Capacity, Planning, and Improvements – Advanced Technology Development and Prototyping
- (D) Operations Concept Validation – Advanced Technology Development and Prototyping
- (E) Software Engineering Resource Center – Advanced Technology Development and Prototyping
- (F) Wide Area Augmentation System for Global Positioning System – Advanced Technology Development and Prototyping – SEE 3A01B
- (G) Local Area Augmentation System for Global Positioning System – Advanced Technology Development and Prototyping – SEE 3A01A
- (H) Airspace Management Laboratory – Advanced Technology Development and Prototyping
- (I) National Airspace System Requirements Development – Advanced Technology Development and Prototyping
- (J) General Aviation /Vertical Flight Technology – Advanced Technology Development and Prototyping
- (K) Domestic Reduced Vertical Separation Minima – Advanced Technology Development and Prototyping

(A) Separation Standards – Advanced Technology Development and Prototyping

Primary Goal: 2.1/2.1.1

Secondary Goal(s): n/a

Program Name and Outcome Goal	FY2001 Program Accomplishments/Status Performance Output Goals
<p>Separation Standards – Advanced Technology Development and Prototyping (ATDP). Improve oceanic system efficiency through introduction of reduced separation standard values in horizontal and vertical planes. Reduced separation standard values permit more aircraft to operate on fuel- and time-optimal routings during the oceanic phase of flight. Increased system capacity following from introduction of reduced separation standard values, as measured by availability of more fuel- and time-efficient routings, induces reduction in delays of oceanic flights at origin airports because increased system capacity allows more on-time departures.</p>	<ul style="list-style-type: none"> • Completed all air traffic control, regulatory, safety assessments, and international documentation preparations for introduction of reduced vertical separation minimum (RVSM) into West Atlantic Route System airspace on November 1, 2001. • Initiated adaptation of North Atlantic airspace model and associated benefit-cost methodology to North Pacific airspace. • Monitored height-keeping performance of 200 aircraft in connection with safety oversight of Pacific and North Atlantic RVSM. • Led Asia Pacific RVSM Implementation Task Force at its 9th, 10th, 11th, and 12th meetings.

Program Plan FY2002 Performance Output Goals	Program Plan FY2003 Performance Output Goals	Key Events FY2004-2007 Performance Output Goals
<ul style="list-style-type: none"> • Initiate safety oversight of Gulf of Mexico (GOM) and West Atlantic airspace in connection with implementation of reduced lateral-separation parallel Air Traffic Services (ATS) routes (T-Routes and Q-Routes) (10/01). • Implement West Atlantic Route System RVSM (11/01). • Complete safety assessment, readiness assessment, and international documentation to support Western Pacific/South China Sea RVSM implementation (01/02). 	<ul style="list-style-type: none"> • Establish ICAO GOM/Caribbean (CAR) RVSM Task Force (01/03). • Conduct seminar for states and operators planning to participate in GOM/CAR RVSM (6/03). • Develop air traffic control operational concept for application of 30-nmi lateral and longitudinal separation standards in FAA-administered oceanic airspace based on deployed FAA oceanic automation system and automatic dependent surveillance (ADS) (6/03). 	<ul style="list-style-type: none"> • Publish operator approval criteria for ADS-based 30-nmi lateral and longitudinal separation standards in FAA-administered Pacific oceanic airspace (03/04). • Implement GOM/CAR RVSM (11/04). • Implement ADS-based 30-nmi lateral and longitudinal separation standards in FAA-administered Pacific oceanic airspace (10/05). • Begin work on horizontal-plane separation minima below 30-nmi for ICAO Separation and Airspace Safety Panel (5/06).

Program Plan FY2002 Performance Output Goals	Program Plan FY2003 Performance Output Goals	Key Events FY2004-2007 Performance Output Goals
<ul style="list-style-type: none"> • Implement Western Pacific/South China Sea RVSM. • Introduce parallel ATS routes in GOM with 18-nautical miles (nmi) lateral separation based on required navigation performance (RNP) approval of operators (06/02). 	<ul style="list-style-type: none"> • Monitor 200 aircraft in connection with application of RVSM airworthiness approval process in North Atlantic and Pacific and with Pacific long-term monitoring requirements (9/03). 	

(B) Runway Incursion Reduction Program – Advanced Technology Development and Prototyping

Primary Goal: 1.1/1.1.4

Secondary Goal(s): n/a

Program Name and Outcome Goal	FY2001 Program Accomplishments/Status Performance Output Goals
Runway Incursion Reduction Program (RIRP) – Advanced Technology Development and Prototyping (ATDP). Reduce the number and rate of runway incursions and improve surface safety at NAS airports through research, development, demonstration, and evaluation of new and emerging methods, procedures, and technologies.	<ul style="list-style-type: none"> • Extended the multilateration technology evaluation to west side of Dallas/Fort Worth International Airport. • Achieved approval for the procurement, testing, and evaluation of ASDE-x at Dallas/Fort Worth International Airport. • Completed the technical assessment of LOOP technology at Long Beach Airport. • Awarded 6 contracts to evaluate and demonstrate emerging technologies for reducing runway incursions under the Surface Technology Broad Agency Announcement (BAA). • Completed the technical assessment of microwave motion sensors at Eppley Airport. • Awarded a contract to evaluate precision approach path indicator (PAPI) flashing lights as a low-cost runway incursion reduction solution. • Initiated and evaluated responses to a Vehicle Tracking BAA for future award of several demonstration contracts.

Program Plan FY2002 Performance Output Goals	Program Plan FY2003 Performance Output Goals	Key Events FY2004-2007 Performance Output Goals
<ul style="list-style-type: none"> • Continue research on potential technology solutions for small- to medium-sized airports. • Complete the operational evaluation of microwave motion sensors integrated with the pavement light-emitting diode (LED) light strip at Eppley Airport. • Conduct testing of runway status lights (RWSL) data fusion and safety logic subsystems. • Develop procedures, education, training, and airport improvements to reduce runway incursions. 	<ul style="list-style-type: none"> • Continue research on potential technology solutions for small- to medium-sized airports. • Complete the technical and operational evaluation of RWSL Program. • Develop performance standards/requirements for selected runway incursion reduction technologies. 	<ul style="list-style-type: none"> • Continue research on potential technology solutions for small- to medium-sized airports. • Continue the development of performance standards/requirements for selected runway incursion reduction technologies.

Program Plan FY2002 Performance Output Goals	Program Plan FY2003 Performance Output Goals	Key Events FY2004-2007 Performance Output Goals
<ul style="list-style-type: none"> Complete site surveys at 14 high runway incursion non-ASDE airports. 		

(C) System Capacity, Planning, and Improvements – Advanced Technology Development and Prototyping

Primary Goal: 2.1

Secondary Goal(s): n/a

Program Name and Outcome Goal	FY2001 Program Accomplishments/Status Performance Output Goals
System Capacity, Planning, and Improvements – Advanced Technology Development and Prototyping (ATDP). Focus on the following: (1) airport improvements such as new runways, high speed exits, departure staging aprons, and new technologies such as Free Flight Phases 1 and 2, WAAS, and LAAS; (2) approach procedure development and refinement for more efficient use of new and existing runways; (3) development of a performance measurement system for the air traffic system to measure FAA progress against agency costs and customer expectations; and (4) expansion of the performance measurement data collection system to include surface operations within the movement area.	<ul style="list-style-type: none"> Conducted demonstrations at George Bush Intercontinental Airport/Houston. Conducted simultaneous offset instrument approaches (SOIA) at San Francisco International Airport, Newark International Airport, Lambert St. Louis International Airport; Chicago O'Hare International Airport/Chicago Midway Airport Enhanced Arrivals (Benchmark). Completed Airport Capacity Benchmark Report 2001. Finished the Airport Efficiency Metric. Conducted Phoenix Sky Harbor International Airport Phase I Airport Design Study. Completed the 2000 Aviation Capacity Enhancement (ACE) Plan.

Program Plan FY2002 Performance Output Goals	Program Plan FY2003 Performance Output Goals	Key Events FY2004-2007 Performance Output Goals
I. NAS Performance Measurement <ul style="list-style-type: none"> En Route Balance Scorecard <ul style="list-style-type: none"> Development and Implementation En Route Scorecard Metrics Air Traffic System Metrics <ul style="list-style-type: none"> System Facility – Performance Data Analysis Reporting System (PDARS) En Route Capacity Metric En Route Efficiency/Economic Causal Analysis Terminal Efficiency/Economic Causal Analysis II. Airport Development <ul style="list-style-type: none"> Benchmarking <ul style="list-style-type: none"> San Francisco International Airport, Philadelphia International Airport, William B. Hartsfield Atlanta International Airport William J. Hughes Technical Center (WJHTC)/ACT-540 Requirements 	I. NAS Performance Measurement <ul style="list-style-type: none"> En Route Balance Scorecard <ul style="list-style-type: none"> Implementation En Route Scorecard Metrics Air Traffic System Metrics <ul style="list-style-type: none"> System Facility - PDARS En Route Capacity Metric Airport Capacity Metric Terminal Balance Scorecard En Route Efficiency/Economic Causal Analysis Terminal Efficiency/Economic Causal Analysis II. Airport Development <ul style="list-style-type: none"> Benchmarking <ul style="list-style-type: none"> San Francisco International Airport, Philadelphia International Airport, William B. Hartsfield Atlanta International Airport ACT-540 Requirements 	I. NAS Performance Measurement <ul style="list-style-type: none"> En Route Capacity Metric Evaluation Airport Capacity Metric Terminal Balance Scorecard Full Integration of Facility Level Performance Metrics into the NAS <ul style="list-style-type: none"> Performance Measurement Cost Measurement Small Aircraft Transportation System Demonstration <ul style="list-style-type: none"> Manassas, Blacksburg, Daytona Beach En Route Efficiency/Economic Causal Analysis Terminal Efficiency/Economic Causal Analysis II. Airport Development <ul style="list-style-type: none"> Benchmarking <ul style="list-style-type: none"> La Guardia Airport, Newark International Airport, John F. Kennedy International Airport ACT-540 Requirements

Program Plan FY2002 Performance Output Goals	Program Plan FY2003 Performance Output Goals	Key Events FY2004-2007 Performance Output Goals
<ul style="list-style-type: none"> • New Large Aircraft (NLA) <ul style="list-style-type: none"> ◦ Memphis International Airport, John F. Kennedy International Airport, Los Angeles International Airport • Regional Jets <ul style="list-style-type: none"> ◦ Dallas/Fort Worth International Airport • 2001 ACE Plan • 2002 ACE Plan • Metrics for Operational Evolution Plan (OEP) 8 Pacing Airports <p>III. Capacity Improvement Opportunities</p> <ul style="list-style-type: none"> • Houston (Arrival Departure-1 (AD-1), Airport Weather-1 (AW-1)) • GPS Support • San Francisco Bay Area Analysis (Metropolitan Oakland International Airport, San Francisco International Airport, San Jose International Airport) • Chicago O'Hare International Airport Design Task Force <p>IV. Architecture Deployment Support</p> <ul style="list-style-type: none"> • SOIA (AW-1) • Along Track Separation • Wake Turbulence Separation Standards (AW-1) • RNP Operations <ul style="list-style-type: none"> ◦ Chicago O'Hare International Airport/Chicago Midway Airport 	<ul style="list-style-type: none"> • NLA <ul style="list-style-type: none"> ◦ Memphis International Airport, John F. Kennedy International Airport, Los Angeles International Airport • Regional Jets <ul style="list-style-type: none"> ◦ Newark International Airport, Philadelphia International Airport, Baltimore-Washington International Airport, General Edward Lawrence Logan International Airport • 2002 ACE Plan • 2003 ACE Plan • Metrics for OEP 8 Pacing Airports • Benchmarking <ul style="list-style-type: none"> ◦ La Guardia Airport, Newark International Airport, John F. Kennedy International Airport • NLA <ul style="list-style-type: none"> ◦ William B. Hartsfield Atlanta International Airport, General Edward Lawrence Logan International Airport, Chicago O'Hare International Airport <p>III. Capacity Improvement Opportunities</p> <ul style="list-style-type: none"> • Houston (AD-1, AW-1) • GPS Support • Chicago O'Hare International Airport Design Task Force <p>IV. Architecture Deployment Support</p> <ul style="list-style-type: none"> • SOIA (AW-1) • Along Track Separation • RNP Operations <ul style="list-style-type: none"> ◦ Chicago O'Hare International Airport/Chicago Midway Airport ◦ San Francisco International Airport, Metropolitan Oakland International Airport, San Jose International Airport <p>V. NAS Plan Handoff</p> <ul style="list-style-type: none"> • Transition Facility Metrics to Operational Use • PDARS Maintenance, Logistics & Infrastructure; Air Traffic Control System 	<ul style="list-style-type: none"> • NLA <ul style="list-style-type: none"> ◦ William B. Hartsfield Atlanta International Airport, General Edward Lawrence Logan International Airport, Chicago O'Hare International Airport • 2003 ACE Plan • 2004 ACE Plan • New OEP Site Specific Airport Design Studies and Performance Management Activities <p>III. Capacity Improvement Opportunities</p> <ul style="list-style-type: none"> • Miami International Airport/Orlando International Airport Metropolitan Control Facility (AD-1, AW-1) <ul style="list-style-type: none"> ◦ Economic Benefits of Airspace Redesign • Other Site Specific Studies <p>IV. Architecture Deployment Support</p> <ul style="list-style-type: none"> • RNP Operations <ul style="list-style-type: none"> ◦ San Francisco International Airport, Metropolitan Oakland International Airport, San Jose International Airport ◦ Detroit Metropolitan Wayne County Airport, Ronald Reagan Washington National Airport • NAS System Modernization Capacity Impacts <p>V. NAS Plan Handoff</p> <ul style="list-style-type: none"> • Transition Facility Metrics to Operational Use • PDARS Maintenance, Logistics & Infrastructure; ATCSCC, AWP, Warsaw Municipal Airport, ASO

Program Plan FY2002 Performance Output Goals	Program Plan FY2003 Performance Output Goals	Key Events FY2004-2007 Performance Output Goals
	Command Center (ATCSCC), aviation weather processor (AWP), Warsaw Municipal Airport, Office of the Regional Administrator, Southern Region (ASO)	

(D) Operations Concept Validation – Advanced Technology Development and Prototyping;

Primary Goal: 2.1 **Secondary Goal(s): n/a**

Program Name and Outcome Goal	FY2001 Program Accomplishments/Status Performance Output Goals
Operations Concept Validation – Advanced Technology Development and Prototyping (ATDP). Develop and deliver validated operational concepts to identify the transition steps in NAS Modernization and support the development of the NAS Architecture and new operational requirements.	<ul style="list-style-type: none"> • Developed gridded airspace prototype to validate concept of new reference system to support en route automation modernization (ERAM). • Conducted analysis of the benefits of domestic reduced vertical separation minimum (DRVSM) and the dynamic use of 1000 foot separations. • Developed detailed scenarios of current NAS as baseline for change. • Developed software architecture and tools to incorporate cognitive models into fast-time simulations. • Conducted studies of secondary tasks (e.g., moving controller from active participants to monitors). • Conducted studies of alerting time/lead-time for operational changes such as dynamic resectorization.

Program Plan FY2002 Performance Output Goals	Program Plan FY2003 Performance Output Goals	Key Events FY2004-2007 Performance Output Goals
<ul style="list-style-type: none"> • Develop detailed scenarios of operational changes in support of architecture and research requirements. • Conduct a comparison of traffic flow management (TFM) techniques (Europe and the United States). • Establish a validation data repository for reuse of experimental data and results. • Deliver an analysis of the core factors related to common trajectory. • Develop detailed workload assessments of traffic situations for use in validating density concepts and alerts for collaborative decision-making (CDM) and TFM products. 	<ul style="list-style-type: none"> • Deliver an information model to translate concept into NAS interface requirements. • Complete study of the technical and human factor parameters in the flight object concept. • Deliver concept of use for future of TFM. • Deliver concept of use for management by trajectory. • Provide capability to model Air Traffic Management (ATM) influences (strategic simulator). 	<ul style="list-style-type: none"> • Develop concept and measures for required total system performance, extending ICAO concept. • Expand high altitude concept through analysis (strategies for point-to-point—no verbal exchange of latitude/longitude nor inclusion in flight plans (cognitive and situational awareness issues)). • Conduct analysis and develop concept for change in cross facility coordination (terminal and en route). • Develop concept for and analysis of separation normalization (3 miles everywhere).

(E) Software Engineering Resource Center – Advanced Technology Development and Prototyping

Primary Goal: 2.1

Secondary Goal(s): n/a

Program Name and Outcome Goal	FY2001 Program Accomplishments/Status Performance Output Goals
<p>Software Engineering Resource Center (SERC) – Advanced Technology Development and Prototyping (ATDP). Reduce the cost of delivering IT services without reducing service quality, and acquire and maintain critical IT knowledge, skills, and abilities.</p>	<ul style="list-style-type: none"> • Conducted analyses of current technologies in software adaptation and implemented these technologies in systems in the NAS systems in order to reduce costs and the time required to deploy software-intensive systems. • Streamlined the procedures for certifying avionics and ground-based safety-critical software. • Implemented prototypes and process improvements into NAS acquisition and operational environments. • Evaluated/validated improved software processes, methods, and engineering tools. • Brought together recognized experts and FAA personnel to solve software problems. • Increased the technical competency of the FAA workforce. • Investigated better and cheaper ways to ensure that NAS hardware and software is safe, secure, and efficient through research and prototyping. • Reduced software costs and schedule slippages. • Reduced system and software acquisition costs. • Provided better estimates for total cost of ownership of commercial off-the-shelf (COTS) intensive systems.

Program Plan FY2002 Performance Output Goals	Program Plan FY2003 Performance Output Goals	Key Events FY2004-2007 Performance Output Goals
<ul style="list-style-type: none"> • Evaluate/validate improved software processes, methods, and engineering tools. • Bring together recognized experts and FAA personnel to solve software problems. • Investigate better and cheaper ways to ensure that NAS hardware and software is safe, secure, and efficient through research and prototyping. • Develop standards and guidelines for COTS/non-developmental item (NDI) software/system assurance. • Develop standards and guidelines for COTS/NDI software system cost estimation. • Develop standards and guidelines for certification of safety critical software-intensive systems. • Lower systems and software acquisition costs. • Develop FAA systems with enhanced safety and 	<ul style="list-style-type: none"> • Evaluate/validate improved software processes, methods, and engineering tools. • Bring together recognized experts and FAA personnel to solve software problems. • Investigate better and cheaper ways to ensure that NAS hardware and software is safe, secure, and efficient through research and prototyping. • Develop standards and guidelines for COTS/NDI software/system assurance. • Develop standards and guidelines for COTS/NDI software/system cost estimation. • Develop standards and guidelines for certification of safety critical software-intensive systems. • Lower systems and software acquisition costs. • Develop FAA systems with enhanced safety and reliability characteristics. 	<ul style="list-style-type: none"> • Evaluate/validate improved software processes, methods, and engineering tools. • Bring together recognized experts and FAA personnel to solve software problems. • Investigate better and cheaper ways to ensure that NAS hardware and software is safe, secure, and efficient through research and prototyping. • Develop standards and guidelines for COTS/NDI software/system assurance. • Develop standards and guidelines for COTS/NDI software system cost estimation. • Develop standards and guidelines for certification of safety critical software-intensive systems. • Lower systems and software acquisition costs. • Develop FAA systems with enhanced safety and reliability characteristics.

Program Plan FY2002 Performance Output Goals	Program Plan FY2003 Performance Output Goals	Key Events FY2004-2007 Performance Output Goals
<ul style="list-style-type: none"> reliability characteristics. • Improve system security. • Improve network infrastructure system capacity, enabling increased utilization of electronic data interchange (EDI) commerce, video conferencing, and Internet-based activities. • Modernize obsolete IT infrastructure elements in headquarters and the regions. • Improve and modernize FAA software engineering skills and capabilities. • Deploy new NAS systems and add new functionality to existing NAS systems more rapidly. • Adapt NAS systems more rapidly and correctly. • Increase confidence in the quality and timeliness of aeronautical data. • Reduce the total lifecycle cost of software adaptation for new and legacy NAS systems. 	<ul style="list-style-type: none"> • Improve system security. • Improve network infrastructure system capacity, enabling increased utilization of EDI commerce, video conferencing, and Internet-based activities. • Modernize obsolete IT infrastructure elements in headquarters and the regions. • Improve and modernize FAA software engineering skills and capabilities. • Deploy new NAS systems and add new functionality to existing NAS systems more rapidly. • Adapt NAS systems more rapidly and correctly. • Increase confidence in the quality and timeliness of aeronautical data. • Reduce the total lifecycle cost of software adaptation for new and legacy NAS systems. 	<ul style="list-style-type: none"> • Improve system security. • Improve network infrastructure system capacity, enabling increased utilization of EDI commerce, video conferencing, and Internet. • Modernize obsolete IT infrastructure elements in headquarters and the regions. • Improve and modernize FAA software engineering skills and capabilities. • Deploy new NAS systems and add new functionality to existing NAS systems more rapidly. • Adapt NAS systems more rapidly and correctly. • Increase confidence in the quality and timeliness of aeronautical data. • Reduce the total lifecycle cost of software adaptation for new and legacy NAS systems.

(H) Airspace Management Laboratory – Advanced Technology Development and Prototyping

Primary Goal: 2.1

Secondary Goal(s): 4.1

Program Name and Outcome Goal	FY2001 Program Accomplishments/Status Performance Output Goals
Airspace Management Laboratory – Advanced Technology Development and Prototyping (ATDP). Improve the efficiency of the NAS by providing the data, metrics, and tools to analyze traffic and airspace configuration to optimize traffic flows through sector design and analysis using historical and projected traffic loads.	<ul style="list-style-type: none"> • Deployed obstruction evaluation legacy replacement prototype to Great Lakes Region. • Deployed PC beta version of sector design and analysis tool (SDAT) to advanced airspace tool users.

Program Plan FY2002 Performance Output Goals	Program Plan FY2003 Performance Output Goals	Key Events FY2004-2007 Performance Output Goals
<ul style="list-style-type: none"> • Complete deployment of 1st generation obstruction evaluation legacy system to all FAA regions. • Complete replacement of legacy SDAT functionality on to the PC platform. Begin integration of data services into SDAT. • Begin higher resolution traffic repository for National Airspace Redesign analysis and deployment of data as an integrated service to 	<ul style="list-style-type: none"> • Expand obstruction evaluation system to handle workflow requirements of non-air traffic divisions. • Enable entry of obstruction evaluation case by the public. • Expand SDAT coverage to include advanced functionality for terminals and TRACONS. • Integrate noise analysis tools as service to SDAT. 	<ul style="list-style-type: none"> • See paperless obstruction evaluation processing from public entry through workflow processing to resolution. • Enable all FAA connected facilities to be capable of analyzing local airspace and traffic issues using a single integrated system. • Standardize security, workflow, and processing for all airspace management processes. • Evaluate performance (using airspace metrics) of

Program Plan FY2002 Performance Output Goals	Program Plan FY2003 Performance Output Goals	Key Events FY2004-2007 Performance Output Goals
SDAT. • Begin web-based airspace metrics.	• Extend next-day drill-down capabilities of airspace metrics to cover FAA points of delivery from terminal to center.	advanced drill-down capabilities for all FAA points of delivery from terminal to center

(I) National Airspace System Requirements Development – Advanced Technology Development and Prototyping

Primary Goal: 2.1/2.1.5

Secondary Goal(s): n/a

Program Name and Outcome Goal	FY2001 Program Accomplishments/Status Performance Output Goals
National Airspace System (NAS) Requirements Development – Advanced Technology Development and Prototyping (ATDP). Contribute to system efficiency through research and evaluation that is provided for the purpose of identifying new and existing technologies that will meet the identified needs of aerospace users. Provide funding for independent investigation of technologies and selected programs to transition from existing to new user needs. Such investigations assist in determining and selecting only those programs or technologies best suited to advance overall NAS system efficiency.	<ul style="list-style-type: none"> • Completed research on navigation aids and NTSB high-risk airports. • Completed research on the impact of ADS-B information on controller techniques and decision-making. • Completed research on weather radar technology NEXRAD for the National Academy of Sciences. • Completed research on weather forecasting accuracy for FAA air traffic control for the National Academy of Sciences. • Conducted special studies, research, and analysis of existing operational facilities and capabilities in support of the Commercial Aviation Safety Team (CAST). • Completed research on requirements for service-based planning in the NAS tool. • Supported aviation weather issue management and coordination. • Supported acquisition management system (AMS) and requirements development. • Initiated portfolio management process for FAA's weather programs. • Conducted human factors evaluation and requirements development.

Program Plan FY2002 Performance Output Goals	Program Plan FY2003 Performance Output Goals	Key Events FY2004-2007 Performance Output Goals
• Fund contracts to continue support of the goals identified in FY 2001.	• Continue to support AMS process through research and investigation of selected programs and/or technologies.	• Continue to support AMS process through research and investigation of selected programs and/or technologies.

(J) General Aviation /Vertical Flight Technology – Advanced Technology Development and Prototyping

Primary Goal: 1.1/1.1.2

Secondary Goal(s): 2.1/2.1.1, 2.1.2

Program Name and Outcome Goal	FY2001 Program Accomplishments/Status Performance Output Goals
General Aviation (GA)/Vertical Flight (VF) Technology – Advanced Technology Development and Prototyping (ATDP). Reduce GA accident rate by integrating new navigation, communication, surveillance technology, improved avionics, and aircraft performance capability in addition to airman training requirements in order to enable a greater number of GA and VF aircraft to receive IFR services and to enable visual flight rules (VFR) aircraft to navigate with a higher level of precision and awareness of the proximity of other aircraft and obstacles.	<ul style="list-style-type: none"> • Designed global positioning system (GPS) based flight procedures for GA operations in mountain passes (Safer Skies initiative). • Completed assessment of requirements and research needed for precision operations at heliports. Wendell H. Ford Aviation Investment Reform Act (AIR-21) legislative requirement. • Completed flight-testing to validate safety of reduced visibility and decision height for helicopter instrument landing system (ILS) approaches. Completed simulation tests of helicopter ILS lighting (helicopter safety issue). • Completed program plan for simultaneous non-interfering (SNI) operations for vertical flight aircraft. AIR-21 legislative requirement.

Program Plan FY2002 Performance Output Goals	Program Plan FY2003 Performance Output Goals	Key Events FY2004-2007 Performance Output Goals
<ul style="list-style-type: none"> • Conduct flight tests to ascertain maximum descent angles for visual segment of helicopter instrument approaches. Modification of terminal instrument procedures (TERPS) criteria. • Develop initial procedures for SNI. Conduct simulation of SNI procedures. • Develop procedures for flight locating (CFR Part 135.79 requirement) using Safe-Flight 21 concepts. • Complete helicopter ILS test report and publish data in the Aeronautical Information Manual (AIM). 	<ul style="list-style-type: none"> • Initiate helicopter steep angle instrument approach and departure TERPS criteria work. • Plan and initiate a demonstration of SNI procedures in a small hub terminal area. • Develop methodology for air traffic control surveillance of sailplanes. Publish criteria and information in the AIM. • Complete plan for aircraft regulatory work required for implementation of elements of Safe Flight 21. 	<ul style="list-style-type: none"> • Complete helicopter steep angle instrument approach and departure TERPS criteria work. • Develop helicopter TERPS for safe reduced noise segmented approaches. • Develop improved lighting systems for heliports. • Complete SNI demonstration in a small hub area and publish SNI criteria and procedures. • Plan and complete a demonstration of SNI in a major hub area. • Complete aircraft regulatory criteria for small aircraft moving map displays, synthetic displays, and enhanced vision.

(K) Domestic Reduced Vertical Separation Minima – Advanced Technology Development and Prototyping

Primary Goal: 2.1

Secondary Goal(s): n/a

Program Name and Outcome Goal	FY2001 Program Accomplishments/Status Performance Output Goals
Domestic Reduced Vertical Separation Minima (DRVSM) – Advanced Technology Development and Prototyping (ATDP). Reduce vertical separation from 2000 feet to 1000 feet above flight level (FL) 290, which will enhance en route traffic throughput by providing 6 additional altitudes between FL 290-FL 410. This will increase NAS efficiency and result in an estimated 1% fuel burn reduction, saving an estimated 400 million annually for users.	<ul style="list-style-type: none"> • Completed management plan and implemented simulation plan. • Developed concept of operations (CONOPS). • Conducted 2 user seminars. • Completed analysis of domestic fleet (Civil and the Department of Defense (DoD)). • Completed safety assessment and monitoring plan.

Program Plan FY2002 Performance Output Goals	Program Plan FY2003 Performance Output Goals	Key Events FY2004-2007 Performance Output Goals
<ul style="list-style-type: none"> • Establish phased implementation. • Complete CONOPS. • Complete air traffic control simulations. • Publish Notice of Proposed Rule Making. • Deploy monitoring system. • Establish Mountain Wave Activity Mitigation Group. • Coordinate activities with Canada and Mexico. 	<ul style="list-style-type: none"> • Modify host computer. • Conduct air traffic control simulations. • Continue Mountain Wave Activity Mitigation Group. • Conduct performance monitoring activity. • Publish final rule. • Coordinate activities with Canada and Mexico. 	<ul style="list-style-type: none"> • Continue performance monitoring. • Complete NAS host computer modifications. • Complete safety and readiness assessment. • Implement DRVSM.

Category 1: 1C02; Aircraft Related Equipment Program;

(A) Aircraft Related Equipment Program

(B) Aircraft Related Equipment Program – Simulator Replacement

(A) Aircraft Related Equipment Program

Primary Goal: 1.1

Secondary Goal(s): 2.1

Program Name and Outcome Goal	FY2001 Program Accomplishments/Status Performance Output Goals
<p>Aircraft Related Equipment Program. Improve air safety by ensuring that (1) flight inspection aircraft/systems are equipped/modified to validate/certify accuracy of navigational aids' electronic signals and validate/certify the flyability of approach/departure flight at all airports in the NAS; (2) research and development (R&D) aircraft are equipped to test/evaluate new aviation technologies for proof of concept, systems integration, equipment, procedures, and related human factors impacts; and (3) support flight/training mission aircraft are equipped to provide meaningful and relevant ASI pilot currency/proficiency experience and training required for ASIs to regulate/certify all pilot instructors and test pilots and validate/certify all NAS commercial and civil aircraft operations. Each of these flight program missions serves to reduce fatal aviation accident rates through investigation and incorporation of accident prevention techniques, safety information sharing/analysis, and certification/surveillance via in-flight inspection, testing, evaluation, and validation of activities directly serving safety initiatives benefiting all air carrier and GA users of the NAS.</p>	<ul style="list-style-type: none"> • Established various contracts to obtain products and services for modernization of aircraft and aircraft systems, and delivered equipment and services that were tested and validated for installation and implementation. These included: <ul style="list-style-type: none"> ○ Digital ILS/very high frequency (VHF) omni-directional range (VOR) flight inspection receivers ○ WAAS/LAAS software development ○ Automated flight inspection system (AFIS) hardware and software ○ Computerized flight monitoring and scheduling system (CFMSS) hardware and software ○ Terrain awareness and warning system (TAWS) acquisition

Program Plan FY2002 Performance Output Goals	Program Plan FY2003 Performance Output Goals	Key Events FY2004-2007 Performance Output Goals
<ul style="list-style-type: none"> • Install/evaluate ILS/VOR receivers in 1 flight inspection aircraft. • Expand CFMSS capabilities. • Develop WAAS/LAAS software. • Install/check out TAWS in 5 aircraft. • Continue AFIS enhancement in 28 aircraft. • Acquire/install low-earth orbit (LEO) satellite communications (SATCOM) in 10 aircraft. 	<ul style="list-style-type: none"> • Complete ILS/VOR receiver installation in all 33 flight inspection aircraft. • Continue expansion of CFMSS capabilities. • Acquire WAAS/LAAS receivers (fleet). • Install TAWS in 22 aircraft. • Install LEO SATCOM in 12 aircraft. • Continue AFIS enhancements in 29 aircraft. • Acquire flight data recorder/cockpit voice recorder upgrade (fleet). • Acquire radio frequency interference RFI/direction finder (DF) equipment (18 aircraft). 	<ul style="list-style-type: none"> • Install TAWS in 20 aircraft. • Install LEO SATCOM in 13 aircraft. • Achieve major cockpit avionics technology refresh for 33 flight inspection aircraft. • Install/implement airborne controller-pilot data link communication (CPDLC) in fleet. • Install/implement RFI/DF in 18 aircraft. • Develop/implement 6 modular flight information service (FIS) units. • Complete flight data recorder/cockpit voice recorder upgrade in fleet. • Develop/implement automated aircraft/scheduling performance system (ASPS). • Develop/implement new technology AFIS.

(B) Aircraft Related Equipment Program – Simulator Replacement

Primary Goal: 1.1

Secondary Goal(s): 2.1

Program Name and Outcome Goal	FY2001 Program Accomplishments/Status Performance Output Goals
Aircraft Related Equipment Program – Simulator Replacement. Improve air safety (through the acquisition of an advanced technology flight simulator) by performing meaningful and relevant R&D operational evaluations for large transport category aircraft representative of the U.S. air carrier industry. Also, provide capability for ASI pilot training and currency/proficiency experience required in the regulation/certification of all activities comprising U.S. aircraft operations.	<ul style="list-style-type: none"> • Determined investment solution. • Developed an acquisition strategy. • Developed acquisition requirements.

Program Plan FY2002 Performance Output Goals	Program Plan FY2003 Performance Output Goals	Key Events FY2004-2007 Performance Output Goals
<ul style="list-style-type: none"> • Solicit vendor interest. 	<ul style="list-style-type: none"> • Acquire new simulator. 	<ul style="list-style-type: none"> • Install/test/accept new simulator. • Conduct simulator operations/maintenance training. • Achieve partial implementation. • Acquire logistics support/equipment. • Achieve full implementation.

Category 1: 1C03; National Aviation Safety Data Analysis Center;

Primary Goal: 1.1/1.1.1

Secondary Goal(s): n/a

Program Name and Outcome Goal	FY2001 Program Accomplishments/Status Performance Output Goals
<p>National Aviation Safety Data Analysis Center (NASDAC). Maximize the potential for data analysis to reduce or prevent fatal commercial accidents by simplifying complicated and difficult data access problems, by strengthening questionable data integrity, by enabling automated analysis to be performed on an integrated basis across multiple bases, by creating integrated data sets, by distributing quality data to the FAA and the broader aviation community, and by acquiring and sharing analytical tools for identification and analysis of precursors to aviation accidents.</p>	<ul style="list-style-type: none"> • Completed Phase I implementation of the NASDAC Advanced Data Architecture, which dramatically enhances legacy data quality and facilitates the use of complex and customized methods of analyzing aviation safety data. • Prepared software requirements statements for 2 integrated data sets (aging aircraft wiring, incident trend monitoring). • Co-sponsored the building of an FAA Data Registry that will be a reference of standardized agency-wide data descriptions (new and legacy databases). • Developed 4 safety data models that will aid in identifying and analyzing accident precursors by enabling users to understand relationships between aviation safety activities and the data elements that describe them. • Developed a draft international standard for assigning unique aircraft identifiers that will enable analysts to trace the history of individual aircraft. • Initiated development of an international standard for “aircraft make/model.” • Initiated development of an aviation thesaurus that can be used to standardize decoding of legacy database narrative fields to structured data fields (text mining) for further analysis. • Completed a proof of concept study of feasibility for adapting commercially available text mining tools to FAA and airline textual safety databases, opening the door to sharing analytical tools beyond FAA and government agencies. • Completed user-based assessment of analytical tools to enhance the delivery of NASDAC services. • Completed a requirements analysis and evaluation of the most effective tools for safety analysis. • Provided 2 governmental agencies with access to the NASDAC desktop system via development and initial deployment of an “Extranet” capability.

Program Plan FY2002 Performance Output Goals	Program Plan FY2003 Performance Output Goals	Key Events FY2004-2007 Performance Output Goals
<ul style="list-style-type: none"> • Create and deploy initial specialized, integrated datasets for individual FAA lines-of-business (LOB) or offices. • Deploy enhanced web-enabled analysis tools on the NASDAC system, including an enhanced query tool and a data visualization tool. • Enhance user analytical capabilities by providing 	<ul style="list-style-type: none"> • Conduct aviation community conference on aviation thesaurus development. • Analyze requirements for capacity/delay related data mart for Air Traffic Operations (ATO) performance-based organization (PBO). • Acquire and deploy web-enabled data mining tool. 	<ul style="list-style-type: none"> • Complete technology refresh of the NASDAC system. • Transform the NASDAC system into a knowledge management system.

Program Plan FY2002 Performance Output Goals	Program Plan FY2003 Performance Output Goals	Key Events FY2004-2007 Performance Output Goals
<p>users of the NASDAC Web Site with the capability to download multiple files.</p> <ul style="list-style-type: none"> • Continue development of international standards for “aircraft make/model” and assignment of unique aircraft identifiers. • Complete development of initial prototype aviation thesaurus and demonstrate usefulness through application to multiple data sources. • Begin planning for aviation community conference on aviation thesaurus development. • Build and validate a prototype text mining tool for airline users in analyzing aircraft crew incident reports. • Provide access to the NASDAC desktop system to at least 2 additional governmental agencies via the NASDAC “Extranet.” 	<ul style="list-style-type: none"> • Analyze need for NASDAC to provide data mining service in addition to data mining tool. 	

Category 1: 1C04; Explosive Detection Technology;

Primary Goal: 5.1/5.1.1

Secondary Goal(s): n/a

Program Name and Outcome Goal	FY2001 Program Accomplishments/Status Performance Output Goals
<p>Explosive Detection Technology (EDT). Achieve 100% screening of selected checked baggage by certified explosives detection systems, eliminating equivalent technologies and procedures at airports.</p>	<ul style="list-style-type: none"> • To be provided.

Program Plan FY2002 Performance Output Goals	Program Plan FY2003 Performance Output Goals	Key Events FY2004-2007 Performance Output Goals
<ul style="list-style-type: none"> • Program will be transferred to the new DOT organization. 	<ul style="list-style-type: none"> • Program will be transferred to the new DOT organization. 	<ul style="list-style-type: none"> • Program will be transferred to the new DOT organization.

Category 2: Improve the Efficiency of the Air Traffic Control System

Category 2: 2A01; Terminal Business Unit; 2A01A; Terminal Automation Program

- Standard Terminal Automation Replacement System – Development & Procurement
- Standard Terminal Automation Replacement System – Technology Refresh
- Terminal Sustain
- Interim Tower Displays
- Standard Terminal Automation Replacement System – Automated Radar Terminal System Model IIIE/Automated Radar Terminal System

Primary Goal: 2.1/2.1.5

Secondary Goal(s): n/a

Program Name and Outcome Goal	FY2001 Program Accomplishments/Status Performance Output Goals
Standard Terminal Automation Replacement System (STARS) Programs. Provide a digital capable system to meet expanding air traffic control needs. The STARS will provide new computer workstations with high-resolution color displays and commercially-based software to allow the FAA to move toward uniform configuration at all terminal facilities. The terminal automation evolves from an infrastructure composed of various FAA and DoD automation systems (ARTS IIIA, ARTS IIA, ARTS IIE, ARTS IIIE, etc.) and associated displays to the STARS.	<ul style="list-style-type: none"> • Achieved ORD of STARS early display configurations (EDC) at 2 key sites. • Delivered final 40 ARTS color displays (ACD). • Commissioned ARTS IIIE at Atlanta TRACON. • Delivered and installed 57 remote ARTS color display (RACD).

Program Plan FY2002 Performance Output Goals	Program Plan FY2003 Performance Output Goals	Key Events FY2004-2007 Performance Output Goals
<ul style="list-style-type: none"> • Deliver Full STARS full service (FS) 2+ at Philadelphia. • Commission ARTS IIIE at Minneapolis-St. Paul, St Louis, Atlanta Phase II, Northern California, and Potomac. • Deliver final 17 RACDs. • Complete Power PC upgrade. • Deploy 11 interim tower displays. • Deliver STARS EDC-2 to 7 sites. • Upgrade El Paso and Syracuse to Full STARS FS-1. • Continue deployment of life cycle maintenance builds for EDC-2 and STARS initial systems configuration (ISC). 	<ul style="list-style-type: none"> • Procure 39 STARS. • Procure 19 DoD ISC systems. • Deliver 18 STARS. • Deliver 19 DoD ISC systems. • Deploy 25 interim tower displays. • Deliver STARS EDC-2+ to 4 sites. • Start EDC-2 upgrades to EDC-2+. • Continue deployment of life cycle maintenance builds for EDC-2 and FS-2+. • Develop STARS enhancements. • Conduct IOT&E. 	<ul style="list-style-type: none"> • Procure 109 STARS. • Procure 60 DoD ISC/FS-2+ systems. • Deliver 141 STARS. • Deliver 91 DoD ISC/FS-2+ systems. • Deploy nine interim tower displays. • Upgrade all EDC-2 and DoD ISC sites to FS-2+ configuration. • Develop and implement life cycle maintenance builds. • Implement technology refresh (i.e., New Sun Operating Systems). • Continue planning, development, and implementation of additional STARS enhancements.

Category 2: 2A01; Terminal Business Unit; 2A01B: Air Traffic Control Beacon Interrogator – Replacement;

Primary Goal: 2.1/2.1.5

Secondary Goal(s): 1.1/1.1.1

Program Name and Outcome Goal	FY2001 Program Accomplishments/Status Performance Output Goals
Secondary Surveillance – Air Traffic Control Beacon Interrogator (ATCBI) – Replacement. Replace existing surveillance ATCBI-4/5 equipment that has reached the end of its life cycles. ATCBI-6 selectively interrogates individual aircraft and provides precise tracking information to the host system. This improved automation tool is designed to support Free Flight.	<ul style="list-style-type: none"> • Procured the first 50 ATCBI-6 production systems. • Conducted site surveys at 46 sites. • Purchased and delivered 40 monopulse beacon test sets (MBTS). • Procured the ATCBI-6 system depot and site spares. • Began the air route surveillance radar (ARSR) model 4/mode 4 and MBTS interface. • Continued rotary joint, antenna, and mounting kit installations. • Began the NAS infrastructure management system (NIMS) interface development.

Program Plan FY2002 Performance Output Goals	Program Plan FY2003 Performance Output Goals	Key Events FY2004-2007 Performance Output Goals
<ul style="list-style-type: none"> • Procure 42 ATCBI-6 production systems. • Commission the 1st article and 1st production systems at Tinker Air Force Base (AFB) and Putnam, OK. • Continue the ARSR-3 and ARSR-4/mode 4 interface. • Procure an additional 60 MBTSs. • Conduct site surveys at 40 sites. • Continue rotary joint, antenna, and mounting kit installations. • Support commissioning efforts. • Begin system delivery and installation at ATCBI-6 sites. 	<ul style="list-style-type: none"> • Procure the remaining 35 ATCBI-6 systems. • Continue the ARSR-3 interface and ARSR-4/mode 4 interface development. • Support commissioning efforts. • Continue rotary joint, antenna, and mounting kit installations. • Complete NIMS interface development. • Continue system delivery and installation at ATCBI-6 sites. 	<ul style="list-style-type: none"> • Continue to support commissioning efforts. • Complete ARSR-4/mode 4 interface efforts and testing to begin in FY 2004. • Continue system delivery and installation at ATCBI-6 sites through FY 2005.

Category 2: 2A01; Terminal Business Unit; 2A01C; Air Traffic Control En Route Radar Facilities Improvements;

Primary Goal: 2.1/2.1.5

Secondary Goal(s): 1.1

Program Name and Outcome Goal	FY2001 Program Accomplishments/Status Performance Output Goals
Long-Range Radar Program – Long-Range Radar (LRR) Improvements – Infrastructure Upgrades. Improve system efficiency of the NAS by ensuring that aircraft positional information and identification derived from LRR sites remain available to support air traffic control services (including separation assurance, traffic management, navigation, and flight information).	<ul style="list-style-type: none"> • Completed facility infrastructure upgrades at 25 en route LRR facilities. Upgrades included the refurbishment or replacement of heating, ventilating, and air-conditioning (HVAC) system and power panels, improvements to grounding systems, and replacement of equipment shelters where necessary and at ATCBI-6 sites. • Performed in-service engineering.

Program Plan FY2002 Performance Output Goals	Program Plan FY2003 Performance Output Goals	Key Events FY2004-2007 Performance Output Goals
<ul style="list-style-type: none"> Perform facility infrastructure upgrades at 20 additional en route LRR facilities out of 126 sites. Upgrades included the refurbishment or replacement of HVAC systems and power panels, improvements to grounding systems, and replacement of equipment shelters, where necessary, and at ATCBI-6 sites. Perform in-service engineering. 	<ul style="list-style-type: none"> Perform facility infrastructure upgrades at 20 additional en route LRR facilities out of 126 sites. Upgrades included the refurbishment or replacement of HVAC systems and power panels, improvements to grounding systems, and replacement of equipment shelters, where necessary, and at ATCBI-6 sites. Perform in-service engineering. 	<ul style="list-style-type: none"> Upgrade en route, beacon-only, ARSR 1/2, 2, and 3, and fixed position surveillance sites receiving ATCBI-6 systems, including refurbishment of HVAC systems and power panels, grounding systems upgrades, and shelter replacements. Complete LRR site surveys, finalize engineering solutions, and acquire necessary equipment and components to replace obsolete or unsustainable infrastructure systems.

Category 2: 2A01; Terminal Business Unit; 2A01D; Terminal Air Traffic Control Facilities - Replace;

Primary Goal: 2.1/2.1.5

Secondary Goal(s): n/a

Program Name and Outcome Goal	FY2001 Program Accomplishments/Status Performance Output Goals
<p>Air Traffic Control Tower/Terminal Radar Approach Control Establish/Sustain/Replace – Air Traffic Control Tower (ATCT)/Terminal Radar Approach Control (TRACON) Replacement. Improve system efficiency and availability of service in the NAS by replacing existing ATCTs and TRACONs that cannot meet the needs of present day airport operational requirements. The average age of control towers is 27 years and some are as old as 40 years. As the volume and complexity of terminal air traffic control increases, so does the need to have additional positions in the ATCTs/TRACONs. The FAA provides air traffic control services from over 270 ATCTs/TRACON facilities and must continually replace these buildings to meet demands.</p>	<ul style="list-style-type: none"> Commissioned 3 ATCTs/TRACONs in FY 2001.

Program Plan FY2002 Performance Output Goals	Program Plan FY2003 Performance Output Goals	Key Events FY2004-2007 Performance Output Goals
<ul style="list-style-type: none"> Procure equipment for 10 sites. Start construction at 3 sites. Commission 5 sites. 	<ul style="list-style-type: none"> Start construction at 6 sites. Commission 3 sites. 	<ul style="list-style-type: none"> Start construction at 18 sites. Commission 17 sites.

- Category 2: 2A01; Terminal Business Unit; 2A01E; Air Traffic Control Tower /Terminal Radar Approach Control Facilities - Improve;**
- (A) Air Traffic Control Tower/Terminal Radar Approach Control Establish/Sustain/Replace – Air Traffic Control Tower/Terminal Radar Approach Control Modernization**
 - (B) Large Terminal Radar Approach Controls – Advanced Facility Planning**
 - (C) Air Traffic Control Tower/Terminal Radar Approach Control Establish/Sustain/Replace – Standard Terminal Automation Replacement System Facilities Upgrades**

(A) Air Traffic Control Tower/Terminal Radar Approach Control Establish/Sustain/Replace – Air Traffic Control Tower/Terminal Radar Approach Control Modernization

Primary Goal: 2.1/2.1.5

Secondary Goal(s): n/a

Program Name and Outcome Goal	FY2001 Program Accomplishments/Status Performance Output Goals
Air Traffic Control Tower/Terminal Radar Approach Control Establish/Sustain/Replace – Air Traffic Control Tower (ATCT)/Terminal Radar Approach Control (TRACON) Modernization. Improve system efficiency and availability of service in the NAS by modernizing and improving terminal facilities to meet current and future operational requirements.	<ul style="list-style-type: none"> Continued modernization efforts at 65 terminal facilities.

Program Plan FY2002 Performance Output Goals	Program Plan FY2003 Performance Output Goals	Key Events FY2004-2007 Performance Output Goals
<ul style="list-style-type: none"> Improve, repair, and sustain 40 ATCTs/TRACON facilities. Add additional positions at 2 ATCTs/TRACON facilities. 	<ul style="list-style-type: none"> Improve, repair, and sustain 28 ATCTs/TRACON facilities. Add additional positions at 6 ATCTs/TRACON facilities. 	<ul style="list-style-type: none"> Continue facility sustainment and modernization activities (subject to available funding).

(B) Large Terminal Radar Approach Controls – Advanced Facility Planning

Primary Goal: 2.1/2.1.5

Secondary Goal(s): n/a

Program Name and Outcome Goal	FY2001 Program Accomplishments/Status Performance Output Goals
Large Terminal Radar Approach Controls (TRACON) – Advanced Facility Planning. To be provided.	<ul style="list-style-type: none"> To be provided.

Program Plan FY2002 Performance Output Goals	Program Plan FY2003 Performance Output Goals	Key Events FY2004-2007 Performance Output Goals
<ul style="list-style-type: none"> To be provided. 	<ul style="list-style-type: none"> To be provided. 	<ul style="list-style-type: none"> To be provided.

(C) Air Traffic Control Tower/Terminal Radar Approach Control Establish/Sustain/Replace – Standard Terminal Automation Replacement System Facilities Upgrades

Primary Goal: 2.1/2.1.5

Secondary Goal(s): n/a

Program Name and Outcome Goal	FY2001 Program Accomplishments/Status Performance Output Goals
Air Traffic Control Tower/Terminal Radar Approach Control Establish/Sustain/Replace – Standard Terminal Automation Replacement System (STARS) Facilities Upgrades. Complete facility upgrades required to provide a stable platform for deployment of STARS.	<ul style="list-style-type: none"> • n/a

Program Plan FY2002 Performance Output Goals	Program Plan FY2003 Performance Output Goals	Key Events FY2004-2007 Performance Output Goals
<ul style="list-style-type: none"> • Provide facility upgrades for STARS deployment at 14 TRACONs and/or associated ATCTs. 	<ul style="list-style-type: none"> • Provide facility upgrades for STARS deployment at 56 TRACONs and/or associated ATCTs. 	<ul style="list-style-type: none"> • Provide facility upgrades for STARS deployment for remaining TRACONs and/or associated ATCTs. <p>Note: Last FY of funding for this program is FY 2006</p>

Category 2: 2A01; Terminal Business Unit; 2A01F: Potomac Terminal Radar Approach Control;

Primary Goal: 2.1/2.1.5

Secondary Goal(s): n/a

Program Name and Outcome Goal	FY2001 Program Accomplishments/Status Performance Output Goals
Large Terminal Radar Approach Controls (TRACON) – Potomac TRACON (PCT). Improve system efficiency through the consolidation of the TRACON facilities serving the Washington-Baltimore Metropolitan and outlying areas and redesign of the associated airspace.	<ul style="list-style-type: none"> • Completed PCT building construction. • Started PCT system installations.

Program Plan FY2002 Performance Output Goals	Program Plan FY2003 Performance Output Goals	Key Events FY2004-2007 Performance Output Goals
<ul style="list-style-type: none"> • Complete PCT system installations. • Commission PCT (consolidated TRACONs at Andrews AFB, Baltimore-Washington International Airport, Ronald Reagan Washington National, Washington Dulles International Airport, and Richmond International Airport). 	<ul style="list-style-type: none"> • Implement PCT airspace redesign. 	<ul style="list-style-type: none"> • n/a

Category 2: 2A01; Terminal Business Unit; 2A01G; Northern California Terminal Radar Approach Control;

Primary Goal: 2.1/2.1.5

Secondary Goal(s): n/a

Program Name and Outcome Goal	FY2001 Program Accomplishments/Status Performance Output Goals
Large Terminal Radar Approach Controls (TRACON) – Northern California TRACON (NCT). Improve system efficiency and effectiveness through the consolidation of the 4 TRACONs (Bay, Sacramento, Stockton, and Monterey) into 1 facility serving Northern California Metropolitan and outlying areas.	<ul style="list-style-type: none"> Installed equipment, such as the enhanced traffic management system (ETMS). Activated 358 out of 361 (99%) telecommunications circuits.

Program Plan FY2002 Performance Output Goals	Program Plan FY2003 Performance Output Goals	Key Events FY2004-2007 Performance Output Goals
<ul style="list-style-type: none"> Complete installation of ARTS IIIE Power PC upgrade. Complete testing and integration of all equipment and automation software. Commission NCT. 	<ul style="list-style-type: none"> Complete decommissioning of pre-NCT TRACONS. 	<ul style="list-style-type: none"> n/a

Category 2: 2A01; Terminal Business Unit; 2A01H; Dallas/Fort Worth Terminal Radar Approach Control;

Primary Goal: 2.1/2.1.5

Secondary Goal(s): n/a

Program Name and Outcome Goal	FY2001 Program Accomplishments/Status Performance Output Goals
Large Terminal Radar Approach Controls (TRACON) – Dallas/Fort Worth TRACON. To be provided.	<ul style="list-style-type: none"> To be provided.

Program Plan FY2002 Performance Output Goals	Program Plan FY2003 Performance Output Goals	Key Events FY2004-2007 Performance Output Goals
<ul style="list-style-type: none"> To be provided. 	<ul style="list-style-type: none"> To be provided. 	<ul style="list-style-type: none"> n/a

Category 2: 2A01; Terminal Business Unit; 2A01I; Terminal Digital Radar (Airport Surveillance Radar Model 11);

- Airport Surveillance Radar Model 11 – Airport Surveillance Radar Model 7/Airport Surveillance Radar Model 8 Replacement, Department of Defense Takeover, New Establishments**
- Airport Surveillance Radar Model 11 – Technology Refresh**

Primary Goal: 2.1/2.1.5

Secondary Goal(s): n/a

Program Name and Outcome Goal	FY2001 Program Accomplishments/Status Performance Output Goals
The Terminal Digital Radar Programs. Improve system efficiency and availability of service in the NAS by replacing existing ASR-7/8 systems and associated ATCBI 4/5. Replacement of existing systems with new digital	<ul style="list-style-type: none"> Selected 29 ASR-11 sites. Completed environmental activities at 17 sites. Initiated 15 site designs.

ASR-11 radar systems will ensure continuation of surveillance service with improved and expanded 6-level weather detection/display capability. New digital ASR-11 systems will also provide the input required for STARS and eliminate the need and cost to re-engineer/replace obsolete parts required to sustain existing ASR-7/8 systems.	<ul style="list-style-type: none"> • 2 sites are currently under construction.
--	---

Program Plan FY2002 Performance Output Goals	Program Plan FY2003 Performance Output Goals	Key Events FY2004-2007 Performance Output Goals
<ul style="list-style-type: none"> • Procure 3 of 112 production systems. • Install 1 ASR-11 systems at DoD site. • Complete construction at 8 ASR-11 facilities. <p>Note: Procurement of production systems is contingent upon FY 2002 Conference Mark.</p>	<ul style="list-style-type: none"> • Achieve ORD at Key Site, Stockton, and first operational feed at Willow Grove. • Complete construction at 7 ASR-11 sites. • Deliver and commission 10 ASR-11 systems. • Conduct IOT&E. 	<ul style="list-style-type: none"> • Complete construction at 79 ASR-11 sites. • Deliver and commission 71 ASR-11 systems.

Category 2: 2A01; Terminal Business Unit; 2A01J; Airport Surveillance Radar (Airport Surveillance Radar Model 9);

- **Terminal Radar Program – Airport Surveillance Radar Model 9**
- **Terminal Radar Program – Airport Surveillance Radar Model 9 - Service Life Extension Program**

Primary Goal: 1.1 Secondary Goal(s): 2.1/2.1.2/2.1.4

Program Name and Outcome Goal	FY2001 Program Accomplishments/Status Performance Output Goals
The Airport Surveillance Radar (ASR) Model 9 Programs. Completed the ASR-9 system acquisition program, with all systems delivered and commissioned, but numerous outages at specific locations have impacted critical ASR-9 operations. The ASR-9 has reached the end its economical service life. Due to increases in power outages, equipment outages, Occupational Safety and Health Administration (OSHA) concerns, and diminishing manufacturing sources (obsolete parts), a SLEP is necessary to maintain the functionality currently provided by these systems.	<ul style="list-style-type: none"> • Implemented power conditioning systems at ASR-9 locations. • Initiated procurement of receiver protectors that have exceeded their service life. • Procured transportable ASR-9 system for Palm Springs Regional Airport. • Signed Finding of No Significant Impact (FONSI) and Record of Decision (ROD) for locating the St. Louis ASR-9.

Program Plan FY2002 Performance Output Goals	Program Plan FY2003 Performance Output Goals	Key Events FY2004-2007 Performance Output Goals
<ul style="list-style-type: none"> • Initiate OSHA modifications, including wave guide relocation, lift cart, and safe sail access. • Install 20 ASR-9 jack-screw and box beam emergency fixes. • Exercise option for procurement of receiver/protectors that have exceeded their service life. • Initiate non-recurring engineering effort for SLEP. • Complete surveillance and communication 	<ul style="list-style-type: none"> • Conduct OSHA modifications, including wave guide relocation, lift cart, and safe sail access. • Complete antenna box beam and jack-screw fixes. • Complete SLEP PDR and working engineering model. • Exercise option for procurement of receiver/protectors that have exceeded their service life. 	<ul style="list-style-type: none"> • Complete OSHA modifications, including wave guide relocation, lift cart, and safe sail access. • Exercise final option for procurement of receiver/protectors that have exceeded their service life. • Conduct SLEP.

Program Plan FY2002 Performance Output Goals	Program Plan FY2003 Performance Output Goals	Key Events FY2004-2007 Performance Output Goals
interface processor emulator for Potomac TRACON Project.		

Category 2: 2A01; Terminal Business Unit; 2A01K; Mode-Select – Provide;

- Secondary Surveillance – Mode-Select
- Secondary Surveillance – Mode-Select - Service Life Extension Program

Primary Goal: 2.1/2.1.2

Secondary Goal(s): n/a

Program Name and Outcome Goal	FY2001 Program Accomplishments/Status Performance Output Goals
The Mode-Select (Mode-S) Programs. Implement a National Upgrade II (after a 4 year delay). The current 68020 processor does not have enough capacity to meet initial and future Mode-S requirements. The National Upgrade to replace the 68020 processor with the newer 68040 processor is required to install dynamic reflectors to mitigate a critical beacon reflection problem, TIS, site identifications to support deployment of beacon interrogator model 6 and ASR-11/monopulse secondary surveillance radar (MSSR). Also, procurement of time of year (TOY) clock replacement, rework of the digital power supply, and modulation control unit board modification will improve performance, reliability, and supportability.	<ul style="list-style-type: none"> • Tested 68040 processor boards. • Deployed beacon video reconstituter. • Initiated TOY clock installation.

Program Plan FY2002 Performance Output Goals	Program Plan FY2003 Performance Output Goals	Key Events FY2004-2007 Performance Output Goals
<ul style="list-style-type: none"> • Initiate Mode-S National Upgrade. • Conduct installation of TOY clock, modulation control unit modification, and rework of the digital power supply. 	<ul style="list-style-type: none"> • Conduct installation of 68040 processor boards in conjunction with Mode-S National Upgrade. • Conduct installation of TOY clock, modulation control unit modification, and rework of the digital power supply. • Expand TIS coverage. 	<ul style="list-style-type: none"> • Complete last ORD in FY 2004. • Complete installation of 68040 processor boards in conjunction with Mode-S National Upgrade. • Complete installation of TOY clock, modulation control unit modification, and rework of the digital power supply. • Implement advanced message format. • Implement ASR-9 SLEP activities.

Category 2: 2A01; Terminal Business Unit; 2A01L; Terminal Applied Engineering;

Primary Goal: 2.1/2.1.5

Secondary Goal(s): n/a

Program Name and Outcome Goal	FY2001 Program Accomplishments/Status Performance Output Goals
Air Traffic Control Tower (ATCT)/Terminal Radar Approach Control (TRACON) Establish/Sustain/Replace – Terminal Applied Engineering. Support system efficiency by streamlining the deployment of FAA resources to	<ul style="list-style-type: none"> • Completed government transition evaluations (GTE) at 49 of 400 terminal facilities. • Completed Phase I of a 3 phase development for the facilities information

conduct surveys and by providing a benchmark for future terminal facility planning.	and analysis tool (FIAT).
---	---------------------------

Program Plan FY2002 Performance Output Goals	Program Plan FY2003 Performance Output Goals	Key Events FY2004-2007 Performance Output Goals
<ul style="list-style-type: none"> Complete GTE and terminal area transition plan at an additional 40 of 400 terminal facilities. Revise the retrofit terminal area transition plans for 31 existing GTE TRACON site reports. Complete Phases II and III for FIAT development. 	<ul style="list-style-type: none"> Complete GTE at an additional 68 of 400 terminal facilities. 	<ul style="list-style-type: none"> Complete GTE at an additional 204 out of 400 terminal facilities.

Category 2: 2A01; Terminal Business Unit; 2A01M; Precision Runway Monitors;

Primary Goal: 2.1/2.1.2, 2.1.4 Secondary Goal(s): n/a

Program Name and Outcome Goal	FY2001 Program Accomplishments/Status Performance Output Goals
Precision Runway Monitor (PRM). Provide the capability to conduct simultaneous independent IFR approaches on parallel runways spaced less than 4,300 feet apart by utilizing 1 second update radar, which will return lost capacity, reduce delays, and improve fuel savings.	<ul style="list-style-type: none"> Commissioned the Philadelphia, PA, system. Began site construction at John F. Kennedy International Airport. Purchased additional system parts due to parts obsolescence.

Program Plan FY2002 Performance Output Goals	Program Plan FY2003 Performance Output Goals	Key Events FY2004-2007 Performance Output Goals
<ul style="list-style-type: none"> Commission the John F. Kennedy International Airport system. Replenish obsolete and spare parts for all PRM systems and training platform. 	<ul style="list-style-type: none"> Continue the Atlanta construction. Award the Atlanta contract for system installation. 	<ul style="list-style-type: none"> Commission the Atlanta system. Complete Atlanta construction, site testing, and commissioning.

Category 2: 2A01; Terminal Business Unit; 2A01N; Houston Area Air Traffic System;

Primary Goal: 2.1/2.1.5 Secondary Goal(s): n/a

Program Name and Outcome Goal	FY2001 Program Accomplishments/Status Performance Output Goals
Large Terminal Radar Approach Controls (TRACON) – Houston Area Air Traffic System (HAATS). To be provided.	<ul style="list-style-type: none"> To be provided.

Program Plan FY2002 Performance Output Goals	Program Plan FY2003 Performance Output Goals	Key Events FY2004-2007 Performance Output Goals
<ul style="list-style-type: none"> To be provided. 	<ul style="list-style-type: none"> To be provided. 	<ul style="list-style-type: none"> To be provided.

Category 2: 2A02; Aeronautical Data Link Applications;

(A) Aeronautical Data Link – Flight Information Service

(B) Aeronautical Data Link – Controller-Pilot Data Link Communication Build I/IA

(C) Aeronautical Data Link – Tower Data Link Services

(A) Aeronautical Data Link – Flight Information Service

Primary Goal: 1.1/1.1.2

Secondary Goal(s): n/a

Program Name and Outcome Goal	FY2001 Program Accomplishments/Status Performance Output Goals
Aeronautical Data Link (ADL) – Flight Information Service (FIS). Improve the safety of the NAS by providing new weather hazard graphics directly to pilots via data link for cockpit display relative to current position and route of flight, and by improving the quality of aviation weather hazard advisories through input of aircraft derived weather data from commuter and low-altitude GA operations.	<ul style="list-style-type: none"> • Obtained license from the Federal Communications Commission (FCC) for 3 initial FIS data link (FISDL) ground stations and achieved IOC. • Published guidance for pilots in FAA AIM, Section 7-1-10.

Program Plan FY2002 Performance Output Goals	Program Plan FY2003 Performance Output Goals	Key Events FY2004-2007 Performance Output Goals
<ul style="list-style-type: none"> • Publish government-industry standards for flight information service broadcast (FIS-B) data link communications through RTCA Special Committee 195. • Achieve operational FISDL service through activation of at least 30 ground stations out of planned 200 total (15%). 	<ul style="list-style-type: none"> • Expand national coverage and operational FISDL services through activation of 100 more ground stations, resulting in 130 operational out of 200 total (65%). • Achieve at least 1,500 active users of FISDL services. • Establish FAA monitoring and quality control of FISDL services. • Publish Advisory Circulars and Technical Standards Order (TSO) supporting FISDL implementation. 	<ul style="list-style-type: none"> • Complete activation of 70 remaining FISDL ground stations in 2003. • Achieve at least 1,500 additional active users of FISDL services each year. • Implement national system for collecting and disseminating automated meteorological reports (AUTOMET) from commuter and low-altitude GA operations beginning in 2003. • Input at least 1,000 AUTOMET reports per day to national system beginning in 2004.

(B) Aeronautical Data Link – Controller-Pilot Data Link Communication Build I/IA

Primary Goal: 2.1/2.1.2

Secondary Goal(s): 1.1/1.1.3

Program Name and Outcome Goal	FY2001 Program Accomplishments/Status Performance Output Goals
Aeronautical Data Link (ADL) – Controller-Pilot Data Link Communication (CPDLC) Build I/IA. Combine reduced voice communications workload and distributed communications responsibility to provide benefits by increasing flight efficiency, which is reflected by less time and fewer miles flown in sector, as well as increased airspace capacity, which is reflected by increased sector traffic throughput (miles in trail restrictions relaxed in an experimental sector based on voice communication reduction) and reduced	<ul style="list-style-type: none"> • Completed CPDLC Build I system development.

delay.	
--------	--

Program Plan FY2002 Performance Output Goals	Program Plan FY2003 Performance Output Goals	Key Events FY2004-2007 Performance Output Goals
<ul style="list-style-type: none"> Complete CPDLC Build I evaluation at Miami Air Route Traffic Control Center (ARTCC). 	<ul style="list-style-type: none"> Complete CPDLC Build I initial daily use (IDU) at Miami ARTCC. 	<ul style="list-style-type: none"> Complete CPDLC Build IA IDU at Miami ARTCC.

(C) Aeronautical Data Link – Tower Data Link Services

Primary Goal: 2.1/2.1.5

Secondary Goal(s): n/a

Program Name and Outcome Goal	FY2001 Program Accomplishments/Status Performance Output Goals
Aeronautical Data Link (ADL) – Tower Data Link Services (TDLS). Improve the efficiency of the NAS by replacing aging, obsolete systems and software. Transition all maintenance from contractor furnished to FAA (organic).	<ul style="list-style-type: none"> Completed refresh system design and development. Performed OT&E. Developed air traffic and airway facilities training materials. Installed refresh system at 1st Key Site (Teterboro, NJ).

Program Plan FY2002 Performance Output Goals	Program Plan FY2003 Performance Output Goals	Key Events FY2004-2007 Performance Output Goals
<ul style="list-style-type: none"> Conduct FCA/PCA. Perform shakedown. Acquire remainder of all required system replacement components. Retrofit system at second Key Site (Philadelphia ATCT). Obtain in-service decision. Continue deployment at 25% of current TDLS sites (58 systems at 57 sites). 	<ul style="list-style-type: none"> Continue/complete deployment of technology refresh. Determine suitable replacement for voice synthesis units. Perform system integration of new voicing units. Procure new voice synthesis hardware for all sites. 	<ul style="list-style-type: none"> Install new voice synthesis hardware (and related software upgrades) at all TDLS sites. Initiate requirements analysis for follow-on TDLS configuration (Aeronautical Telecommunications Network (ATN) based).

Category 2: 2A03; Free Flight Phase 2;

(A) Free Flight Phase 2 – Integration

(B) Free Flight Phase 2 – User Request Evaluation Tool

(C) Free Flight Phase 2 – Traffic Management Advisor-Single Center

(D) Free Flight Phase 2 – Collaborative Decision-Making

(E) Free Flight Phase 2 – Priority Research Support Efforts

(A) Free Flight Phase 2 – Integration

Primary Goal: 2.1/2.1.5

Secondary Goal(s): n/a

Program Name and Outcome Goal	FY2001 Program Accomplishments/Status Performance Output Goals
Free Flight Phase 2 - Integration. Improve system efficiency by supporting	<ul style="list-style-type: none"> Completed human factors assessment for Free Flight Phase 2.

the IDU/planned capability available activities for the Free Flight Phase 2 tools/capabilities.	
---	--

Program Plan FY2002 Performance Output Goals	Program Plan FY2003 Performance Output Goals	Key Events FY2004-2007 Performance Output Goals
<ul style="list-style-type: none"> Establish Free Flight Phase 2's tracking milestones during JRC-2B in June 2002. 	<ul style="list-style-type: none"> Establish Free Flight Phase 2's tracking milestones during JRC-2B in June 2002. 	<ul style="list-style-type: none"> Establish Free Flight Phase 2's tracking milestones during JRC-2B in June 2002.

(B) Free Flight Phase 2 - User Request Evaluation Tool

Primary Goal: 2.1/2.1.1, 2.1.2 **Secondary Goal(s):** n/a

Program Name and Outcome Goal	FY2001 Program Accomplishments/Status Performance Output Goals
Free Flight Phase 2 - User Request Evaluation Tool (URET). Provide a tool that identifies conflicts in requested flight paths and allows air traffic controllers to evaluate pilot requests. Contribute to an increase in direct routings by 15%.	<ul style="list-style-type: none"> n/a

Program Plan FY2002 Performance Output Goals	Program Plan FY2003 Performance Output Goals	Key Events FY2004-2007 Performance Output Goals
<ul style="list-style-type: none"> Establish Free Flight Phase 2's tracking milestones during JRC-2B in June 2002. 	<ul style="list-style-type: none"> Establish Free Flight Phase 2's tracking milestones during JRC-2B in June 2002. 	<ul style="list-style-type: none"> Establish Free Flight Phase 2's tracking milestones during JRC-2B in June 2002.

(C) Free Flight Phase 2 - Traffic Management Advisor-Single Center

Primary Goal: 2.1/2.1.1, 2.1.2 **Secondary Goal(s):** n/a

Program Name and Outcome Goal	FY2001 Program Accomplishments/Status Performance Output Goals
Free Flight Phase 2 - Traffic Management Advisor (TMA) – Single Center (TMA-SC). Contribute to an increased capacity at selected airports by 3%.	<ul style="list-style-type: none"> n/a

Program Plan FY2002 Performance Output Goals	Program Plan FY2003 Performance Output Goals	Key Events FY2004-2007 Performance Output Goals
<ul style="list-style-type: none"> Establish Free Flight Phase 2's tracking milestones during JRC-2B in June 2002. 	<ul style="list-style-type: none"> Establish Free Flight Phase 2's tracking milestones during JRC-2B in M June 2002. 	<ul style="list-style-type: none"> Establish Free Flight Phase 2's tracking milestones during JRC-2B in June 2002.

(D) Free Flight Phase 2 – Collaborative Decision-Making

Primary Goal: 2.1/2.1.1, 2.1.2 **Secondary Goal(s):** n/a

Program Name and Outcome Goal	FY2001 Program Accomplishments/Status Performance Output Goals
Free Flight Phase 2 - Collaborative Decision-Making (CDM). Contribute to	<ul style="list-style-type: none"> Deployed initial increment of collaborative routing and coordination tools

an increased capacity at selected airports by 3% and contribute to an increase in direct routings by 15%.	(CRCT) functionality. • Made available the flow constrained area information for use on ETMS and common constrained situation display for strategic planning purposes.
---	---

Program Plan FY2002 Performance Output Goals	Program Plan FY2003 Performance Output Goals	Key Events FY2004-2007 Performance Output Goals
• Establish Free Flight Phase 2's tracking milestones during JRC-2B in June 2002.	• Establish Free Flight Phase 2's tracking milestones during JRC-2B in June 2002.	• Establish Free Flight Phase 2's tracking milestones during JRC-2B in June 2002.

(E) Free Flight Phase 2 - Priority Research Support Efforts

Primary Goal: 2.1/2.1.1, 2.1.2 **Secondary Goal(s):** n/a

Program Name and Outcome Goal	FY2001 Program Accomplishments/Status Performance Output Goals
Free Flight Phase 2 - Priority Research Support Efforts. Develop new tools to help increase NAS capacity/efficiency.	• Conducted the following: laboratory and field demonstrations of direct-to, problem analysis, resolution, and ranking (PARR) conflict probe tools; initial lab simulation with surface management system (SMS); design and development of TMA-multi center (TMA-MC).

Program Plan FY2002 Performance Output Goals	Program Plan FY2003 Performance Output Goals	Key Events FY2004-2007 Performance Output Goals
<ul style="list-style-type: none"> • Conduct lab and field evaluations of priority research tools. • Establish JRC investment decisions for incremental development of PARR. 	<ul style="list-style-type: none"> • Conduct lab and field evaluations of TMA-MC, direct-to, PARR, and SMS. 	<ul style="list-style-type: none"> • Deploy operational prototype, if technology is sufficiently mature. • Transition prototype to production (if research is successful).

Category 2: 2A04; Air Traffic Management;

Primary Goal: 2.1/2.1.2, 2.1.5 **Secondary Goal(s):** n/a

Program Name and Outcome Goal	FY2001 Program Accomplishments/Status Performance Output Goals
Air Traffic Management (ATM) – Traffic Flow Management (TFM) Infrastructure – Current Enhanced Traffic Management System (ETMS) Operations. Improve system efficiency by utilizing national-scale traffic management. Sustain and upgrade mission essential TFM operations that are mandated Congressionally to handle the expected increase in air traffic and TFM message traffic that will be generated by full implementation of new delay reduction initiatives and free flight.	<ul style="list-style-type: none"> • Funded the 3rd year of a 3-year nation wide lease for hardware and communication equipment at Hub Development Lab, Academy facilities. • Completed bandwidth manager (BWM) circuit upgrade. • Finalized communications upgrade to support current requirements and new Free Flight Phase 1 functionality, including additional ground delay program enhancements (GDPE) and collaborative routing tools. • Upgraded software/memory to increase efficiency and functionality for configuration at traffic management units (TMU), Hub, and lab facilities.

Program Plan FY2002 Performance Output Goals	Program Plan FY2003 Performance Output Goals	Key Events FY2004-2007 Performance Output Goals
<ul style="list-style-type: none"> • Continue functional upgrades to provide national-scale traffic management tools to balance traffic loads. • Support continued safe flight operations and maximize air traffic flow, thereby performing the mission of managing en route air traffic flow at the ATCSCC from data from the TFM HUB. • Report traffic conditions from local TMUs and coordinate delay reduction initiatives with the airlines. • Develop and initiate new software releases and related data integration that affect Hub operations at VOLPE. • Install ETMS in new PCT and Gateway (Lambert St. Louis International Airport) TRACON. 	<ul style="list-style-type: none"> • Integrate sector traffic management tools, web-based situational display, dynamic sector realignment, and monitor alert-flight database restructuring. • Integrate and utilize (free flight) additional CDM tools. • Upgrade to enhanced hardware and site integration until new platform is in place. 	<ul style="list-style-type: none"> • Continue TFM operations at all facilities. • Begin infrastructure re-engineering modernization. • Determine future requirements for ETMS transitioning to operations funding.

Category 2: 2A05; Free Flight Phase 1;

Primary Goal: 2.1

Secondary Goal(s): n/a

Program Name and Outcome Goal	FY2001 Program Accomplishments/Status Performance Output Goals
Free Flight Phase 1 – Sustain. Improve system efficiency by continuing to derive capacity gains realized from Free Flight Phase 1 systems.	<ul style="list-style-type: none"> • Deployed TMA to Miami ARTCC with an IDU of 5/01. • Deployed passive final approach spacing tool (pFAST) to Southern California TRACON with an IDU of 2/01. • Completed URET system government acceptance 10/01. • Made CDM runway visual range (RVR) information available from Boston, Memphis, and Volpe 2/01.

Program Plan FY2002 Performance Output Goals	Program Plan FY2003 Performance Output Goals	Key Events FY2004-2007 Performance Output Goals
<ul style="list-style-type: none"> • Complete 3 en route centers with URET capability by 3/02. • Complete center terminal radar approach control automation system (CTAS) en route spiral 3 software by March 2002. 	<ul style="list-style-type: none"> • Increase direct routing within ARTCCs (URET). The target is 15 percent. 	<ul style="list-style-type: none"> • Conduct maintenance.

Category 2: 2A06; Automated Surface Observing System;

- **Automated Surface Observing System – Base Systems**
- **Automated Surface Observing System – Pre-Planned Product Improvements**
- **Automated Surface Observing System – Data Displays**
- **Automated Surface Observing System – Standalone Weather Systems**

Primary Goal: 2.1

Secondary Goal(s): n/a

Program Name and Outcome Goal	FY2001 Program Accomplishments/Status Performance Output Goals
Automated Surface Observing System (ASOS) Programs. Support system efficiency by supplying automating surface weather observations to meet the needs of pilots, operators, and air traffic personnel. The Aviation Surface Weather Observation Network (ASWON) includes AWOS, ASOS, automated weather sensors systems (AWSS), stand alone weather sensors (SAWS), and ASOS controller equipment information display system (ACE-IDS or Data Displays).	<ul style="list-style-type: none"> • Delivered 8 ACE-IDS. • Implemented product improvements and upgrades to ASOS. • Commissioned 79 ASOSs.

Program Plan FY2002 Performance Output Goals	Program Plan FY2003 Performance Output Goals	Key Events FY2004-2007 Performance Output Goals
<ul style="list-style-type: none"> • Begin SAWS delivery. • Implement product improvements and upgrades to the base ASOSs. • Deliver 10 SAWSs. • Deliver 4 ACE-IDSs. • Complete ASOS commissioning. 	<ul style="list-style-type: none"> • Implement product improvements and upgrades to the base ASOSs. • Deliver 36 SAWSs. • Deliver 2 ACE-IDSs. 	<ul style="list-style-type: none"> • Implement product improvements and upgrades to the base ASOSs. • Deliver 144 SAWSs. • Deliver 1 ACE-IDSs.

Category 2: 2B01; Next Generation Very High Frequency Air-to-Ground Communications System;

- **Next Generation Air-to-Ground Communications System - Segment 1a**
- **Next Generation Air-to-Ground Communications System - Segment 1b**
- **Next Generation Air-to-Ground Communications System - Segments 2/3**
- **Ultra High Frequency Radio Replacement**

Primary Goal: 2.1

Secondary Goal(s): n/a

Program Name and Outcome Goal	FY2001 Program Accomplishments/Status Performance Output Goals
Next Generation Air-to-Ground (A/G) Communications System (NEXCOM) Segments 1a, 1b, and 2/3 and Ultra High Frequency (UHF) Radio Replacement Programs. Provide a new communications system to satisfy requirements that cannot be met using the current voice communications system.	<ul style="list-style-type: none"> • Awarded NEXCOM multi-mode digital radio (MDR) contract (completed 7/01).

Program Plan FY2002 Performance Output Goals	Program Plan FY2003 Performance Output Goals	Key Events FY2004-2007 Performance Output Goals
<ul style="list-style-type: none"> • Complete analog voice IOC. • Award system prototype contract. • Establish government/industry partnership for avionics development. • Conduct IOT&E. 	<ul style="list-style-type: none"> • Conduct MDR in-service decision. • Complete 1st commissioning (analog voice). 	<ul style="list-style-type: none"> • Conduct NEXCOM demonstration validation. • Award NEXCOM contract in 2005. • Conduct NEXCOM in-service decision in 2007.

Category 2: 2B02; En Route Automation Program;

Primary Goal: 2.1/2.1.2

Secondary Goal(s): n/a

Program Name and Outcome Goal	FY2001 Program Accomplishments/Status Performance Output Goals
En Route Automation Modernization (ERAM). Improve system efficiency in all ARTCCs through the use of a more modern, open, and supportable en route automation environment that has the capability to readily adapt to evolving requirements and meet the long-term requirements for availability, capacity, and efficiency.	<ul style="list-style-type: none"> • Completed en route information display system (ERIDS) COTS-based developmental system. • Completed initial evaluation of en route training simulation NDI capabilities. • Completed flight plan preprocessing (FPPP) phase 1 prototype design.

Program Plan FY2002 Performance Output Goals	Program Plan FY2003 Performance Output Goals	Key Events FY2004-2007 Performance Output Goals
<ul style="list-style-type: none"> • Deploy ERIDS developmental system to Salt Lake City and Boston ARTCCs. • Complete initial evaluation of deployed ERIDS developmental system. • Conduct FPPP phase 1 prototype evaluations. • Complete FPPP phase 2 prototype development with dynamic restrictions, and initiate evaluation activities. • Complete JRC-2A for the ERAM Solution contract. 	<ul style="list-style-type: none"> • Award ERAM solution contract. 	<ul style="list-style-type: none"> • Achieve IOC for ERAM capabilities. • Achieve ORD for ERAM capabilities.

Category 2: 2B03; Weather and Radar Processor;

Primary Goal: 2.1

Secondary Goal(s): n/a

Program Name and Outcome Goal	FY2001 Program Accomplishments/Status Performance Output Goals
Weather and Radar Processor (WARP) – Stage 3 – Sustain Weather Operations. Collect, process, and disseminate NEXRAD data and other weather data to ARTCC controllers, traffic management specialists, and ARTCC weather service unit meteorologists. WARP provides the most timely and accurate weather forecast products to other NAS subsystems.	<ul style="list-style-type: none"> • Deployed WARP Stage 1 and 2 systems. • Implemented WARP Stage 3 weather information network system (WINS) to support Free Flight Phase 1 at 7 sites. • Continued development of other WARP Stage 3 critical operational changes, upgrades, and new interfaces.

Program Plan FY2002 Performance Output Goals	Program Plan FY2003 Performance Output Goals	Key Events FY2004-2007 Performance Output Goals
<ul style="list-style-type: none"> • IOC of NEXRAD products on display system replacement (DSR). • Complete WINS deployment at all ARTCCs. • Continue Stage 3 and provide systems changes as required by users. 	<ul style="list-style-type: none"> • Develop an interface with the National Weather Service (NWS) advanced weather interactive processing system (AWIPS) to improve weather forecasting. • Develop operational changes to accommodate NEXRAD hardware and software upgrades. • Implement WINSs at additional ARTCCs to provide critical weather data to Free Flight Phase 1 and 2 Programs. 	<ul style="list-style-type: none"> • Continue Stage 3 activities to develop critical NAS interfaces (e.g., ITWS, operational and supportability implementation system (OASIS), and ETMS). • Conduct hardware refresh.

Category 2: 2C04 Aircraft Fleet Modernization;

Primary Goal: 2.1/2.1.1, 2.1.2, 2.1.3, 2.1.4

Secondary Goal(s): 1.1/3.1/4.1

Program Name and Outcome Goal	FY2001 Program Accomplishments/Status Performance Output Goals
Research and Development (R&D), Aircraft Replacement. Acquire a modern jet transport aircraft equipped with a suite of digital cockpit avionics representative of the current and future U.S. airline jet aircraft population to perform required various airborne R&D and test and evaluation (RDT&E) functions in support of agency safety, security, system efficiency, and human & natural environment goals.	<ul style="list-style-type: none"> • n/a

Program Plan FY2002 Performance Output Goals	Program Plan FY2003 Performance Output Goals	Key Events FY2004-2007 Performance Output Goals
<ul style="list-style-type: none"> • Incorporate latest security program concerns into proposed replacement criteria. • Negotiate the acquisition of a new aircraft. 	<ul style="list-style-type: none"> • Delivery of new aircraft. • Configure aircraft for RDT&E support. 	<ul style="list-style-type: none"> • Continue to provide wide-ranging RDT&E airborne support with a modern jet transport. • Provide a critical in-flight jet transport test functions in the proper test laboratory.

Category 3: Increase Capacity of the National Airspace System

Category 3: 3A01; Navigation and Landing Aids: 3A01A; Local Area Augmentation System for Global Positioning System;

- Local Area Augmentation System for Global Positioning System
- Local Area Augmentation System - Advanced Technology Development and Prototyping

Primary Goal: 1.1

Secondary Goal(s): n/a

Program Name and Outcome Goal	FY2001 Program Accomplishments/Status Performance Output Goals
Local Area Augmentation System (LAAS) Programs. Increase system safety and efficiency by providing a satellite-based precision approach capability to the NAS that meets the requirements for weather approach and landing capability.	<ul style="list-style-type: none"> • Released Category (CAT) I draft RFI.

Program Plan FY2002 Performance Output Goals	Program Plan FY2003 Performance Output Goals	Key Events FY2004-2007 Performance Output Goals
<ul style="list-style-type: none"> • Award contract for CAT I LAASs. 	<ul style="list-style-type: none"> • Begin procurement of CAT I LAASs. 	<ul style="list-style-type: none"> • Award CAT II/III development contract. • Complete CAT I LAAS buys.

Category 3: 3A01; Navigation and Landing Aids: 3A01B; Wide Area Augmentation System for Global Positioning System;

- Wide Area Augmentation System for Global Positioning System
- Wide Area Augmentation System – Satellite Telecommunications
- Wide Area Augmentation System – Advanced Technology Development and Prototyping

Primary Goal: 1.1

Secondary Goal(s): 2.1

Program Name and Outcome Goal	FY2001 Program Accomplishments/Status Performance Output Goals
Wide Area Augmentation System (WAAS) Programs. Provide benefits to both aviation users through efficiencies, safety, and simplification of avionics, and to the government through reduced ground-based facility costs. The qualitative benefits include improved safety while operating in reduced weather conditions, improved efficiency at airport operations due to greater runway availability, reduced separation, more direct en route paths, and new precision approach services to the public. Outcome Measure: Percent reduction in system costs per flight.	<ul style="list-style-type: none"> • Negotiated and signed lateral navigation (LNAV)/vertical navigation (VNAV) schedule/contract modification with the prime contractor, Raytheon Corporation (September 2001). • Published LNAV/VNAV December 2003 Commissioning Date (March 2001). • WAAS Integrity Performance Panel (WIPP) eliminated Space Vehicle-19 monitor algorithm requirement: <ul style="list-style-type: none"> ○ Simplified design ○ Total of 8 instead of 9 monitor algorithms • Acknowledged 1 year anniversary of WAAS signal available for public use (August 2001).

Program Plan FY2002 Performance Output Goals	Program Plan FY2003 Performance Output Goals	Key Events FY2004-2007 Performance Output Goals
<ul style="list-style-type: none"> Reduce the rates of volume- and equipment-related system delays by 20% from the 1994 baseline. Support the Associate Administrator for Certification and Regulation (AVR) Safer Skies initiative (cornerstone for free flight). Demonstrate that WAAS systems architecture achieves deliverable performance objectives. Develop LNAV/VNAV procedures for additional runway ends. 	<ul style="list-style-type: none"> WAAS performance parameters for Level I: En Route/Non-Precision Approach (NPA) Horizontal Accuracy 100 meters or less Vertical Accuracy n/a Time to Alarm 8 seconds Availability 99.9% Continue reduction rate of volume and equipment-related delays. 	<ul style="list-style-type: none"> Commission WAAS IOC for LNAV/NAV 12/03 Develop and initiate implementation of GPS landing system capability. Acquire additional redundant geo-stationary satellite services. Continue to develop GPS approach procedures to serve all IFR runway ends. Develop LNAV/VNAV and global navigation satellite system (GNSS) landing system (GLS) procedures for additional runway ends. Develop an electromagnetic interference detection and location capability.

Category 3: 3A01; Navigation and Landing Aids: 3A01C; Equipment (Distance Measuring Equipment);

Primary Goal: 2.1/2.1.5

Secondary Goal(s): n/a

Program Name and Outcome Goal	FY2001 Program Accomplishments/Status Performance Output Goals
Very High Frequency (VHF) Omni-Directional Range Collocated with Tactical Air Navigation (VORTAC). Improve system efficiency in the NAS by replacing, relocating, or converting VOR/VORTAC facilities in order to maintain a reliable, safe, and efficient air navigation system used for en route and approach purposes.	<ul style="list-style-type: none"> Performed field installation of approximately 29 tactical air navigation (TACAN) antenna retrofit kits. Initiated relocation process of 1 VOR facility.

Program Plan FY2002 Performance Output Goals	Program Plan FY2003 Performance Output Goals	Key Events FY2004-2007 Performance Output Goals
<ul style="list-style-type: none"> Perform field installation of approximately 29 TACAN antenna retrofit kits. Complete relocation process of 1 VOR facility. 	<ul style="list-style-type: none"> Perform field installation of approximately 31 TACAN antenna retrofit kits. 	<ul style="list-style-type: none"> Continue facility relocations, retrofits, conversions, and upgrades as required.

Category 3: 3A01; Navigation and Landing Aids: 3A01D; Instrument Landing System – Establish/Upgrade;

Primary Goal: 2.1

Secondary Goal(s): n/a

Program Name and Outcome Goal	FY2001 Program Accomplishments/Status Performance Output Goals
Instrument Landing Systems (ILS). Improve system efficiency of the NAS by establishing and maintaining precision approach capability at large- and medium-sized hub airports and their associated reliever airports. ILS will help meet expanding air traffic control needs for increased airport capability by	<ul style="list-style-type: none"> Deploy 15 ILSs at various locations. Deploy 2 medium-intensity approach light systems with runway alignment indicator lights (MALSR) at various locations. Deploy 1 approach light system with sequenced flashing lights (ALSF)

increasing capacity through lowering of visual minimums required for landing.	model 2.
---	----------

Program Plan FY2002 Performance Output Goals	Program Plan FY2003 Performance Output Goals	Key Events FY2004-2007 Performance Output Goals
<ul style="list-style-type: none"> • Deploy 6 ILSs at various locations. • Deploy 4 MALSR at various locations. • Deploy 2 ALSF-2 at various locations. 	<ul style="list-style-type: none"> • Procure and perform regional installations at approximately 30 ILS locations. 	<ul style="list-style-type: none"> • Continue to procure and install ILSs and associated equipment to meet demand for precision approach capability at required airports.

Category 3: 3A01; Navigation and Landing Aids: 3A01E; Approach Lighting System Improvement Program;

Primary Goal: 1.1/1.1.1

Secondary Goal(s): n/a

Program Name and Outcome Goal	FY2001 Program Accomplishments/Status Performance Output Goals
Visual Navigation Aids – Approach Lighting System Improvement Program (ALSIP) Continuation. Improve safety in the NAS by replacing rigid, non-frangible lighting support structures with frangible approach lighting equipment.	<ul style="list-style-type: none"> • Deployed 6 MALSR at various locations. • Deployed 1 ALSF-2.

Program Plan FY2002 Performance Output Goals	Program Plan FY2003 Performance Output Goals	Key Events FY2004-2007 Performance Output Goals
<ul style="list-style-type: none"> • Deploy 2 MALSR at various locations. • Deploy 1 ALSF-2. 	<ul style="list-style-type: none"> • Deploy 5 MALSR at various locations. • Deploy 1 ALSF-2. 	<ul style="list-style-type: none"> • Continue to procure and install approach lighting systems and their associated frangible structures.

Category 3: 3A01; Navigation and Landing Aids: 3A01F; Runway Visual Range;

Primary Goal: 1.1/1.1.1

Secondary Goal(s): n/a

Program Name and Outcome Goal	FY2001 Program Accomplishments/Status Performance Output Goals
Runway Visual Range (RVR) – Replacement/Establishment. Improve safety in the NAS by replacing the older, maintenance intensive, and difficult to support legacy systems (RVR, SSR, and Tasker 400s and 500s). RVR systems provide critical meteorological visibility information that is necessary for takeoff and landings on precision approach equipped runways. These older systems are frequently supported by rigid, steel, non-frangible structures.	<ul style="list-style-type: none"> • Deployed 10 RVR systems at various airports.

Program Plan FY2002 Performance Output Goals	Program Plan FY2003 Performance Output Goals	Key Events FY2004-2007 Performance Output Goals
<ul style="list-style-type: none"> • Deploy 6 RVR systems at various airports. 	<ul style="list-style-type: none"> • Procure and perform field installations at approximately 19 RVR locations. 	<ul style="list-style-type: none"> • Continue to procure and install RVR systems to meet demand for visibility information at precision approach equipped runways.

Category 3: 3A01; Navigation and Landing Aids: 3A01G; Distance Measuring Equipment – Sustain;

Primary Goal: 2.1 Secondary Goal(s): n/a

Program Name and Outcome Goal	FY2001 Program Accomplishments/Status Performance Output Goals
Distance Measuring Equipment (DME) – Sustain. Improve system efficiency in the NAS by replacing obsolete, tube-type DME that provides critical distance information to pilots during preparation for landing.	<ul style="list-style-type: none"> Deployed 10 low power DME systems at various locations.

Program Plan FY2002 Performance Output Goals	Program Plan FY2003 Performance Output Goals	Key Events FY2004-2007 Performance Output Goals
<ul style="list-style-type: none"> Deploy 5 low power DME systems at various locations. 	<ul style="list-style-type: none"> Procure and perform field installations at approximately 15 low power DME locations. 	<ul style="list-style-type: none"> Continue to procure and install low power DME to replace the current older, tube-type equipment in the NAS.

Category 3: 3A01; Navigation and Landing Aids: 3A01H; Non-Directional Beacon Facilities – Sustain;

Primary Goal: 2.1 Secondary Goal(s): n/a

Program Name and Outcome Goal	FY2001 Program Accomplishments/Status Performance Output Goals
Non-Directional Beacons (NDB) Sustain. Improve system efficiency in the NAS by replacing obsolete, tube-type NDBs with current technology electronics that continue to provide navigational direction information.	<ul style="list-style-type: none"> Procure and install NDB equipment at approximately 8 regional locations.

Program Plan FY2002 Performance Output Goals	Program Plan FY2003 Performance Output Goals	Key Events FY2004-2007 Performance Output Goals
<ul style="list-style-type: none"> Procure and install NDB equipment at approximately 13 regional locations. 	<ul style="list-style-type: none"> Procure and install NDB equipment at approximately 14 regional locations. 	<ul style="list-style-type: none"> Continue to procure and install NDB equipment at approximately 16 regional locations.

Category 3: 3A01; Navigation and Landing Aids: 3A01I; Visual Navigation Aids – Establish/Expand;

Primary Goal: 2.1/2.1.5 Secondary Goal(s): n/a

Program Name and Outcome Goal	FY2001 Program Accomplishments/Status Performance Output Goals
Visual Navigation Aids – Visual Navigation Aids for New Qualifiers. Improve system efficiency of the NAS by providing visual approach slope guidance and runway threshold identification in order to increase landing capability at designated airports throughout the United States.	<ul style="list-style-type: none"> Deployed 12 PAPI systems at various locations.

Program Plan FY2002 Performance Output Goals	Program Plan FY2003 Performance Output Goals	Key Events FY2004-2007 Performance Output Goals
<ul style="list-style-type: none"> • Deploy 6 PAPI systems at various locations. 	<ul style="list-style-type: none"> • Procure and perform regional installations at approximately 35 PAPI locations. 	<ul style="list-style-type: none"> • Continue to procure and install PAPI and runway end identifier lights (REIL) equipment to meet demand for visual approach guidance at required airports.

Category 3: 3A01; Navigation and Landing Aids: 3A01J; Visual Approach Slope Indicator Replacement – Replace with Precision Approach Path Indicator;

Primary Goal: 2.1 Secondary Goal(s): n/a

Program Name and Outcome Goal	FY2001 Program Accomplishments/Status Performance Output Goals
Visual Navigation Aids – Replace Visual Approach Slope Indicator (VASI) with Precision Approach Path Indicator (PAPI). Improve system efficiency in the NAS by replacing aging, obsolete VASI with newer technology—the more standardized PAPI.	<ul style="list-style-type: none"> • Deployed 4 PAPI systems at various locations.

Program Plan FY2002 Performance Output Goals	Program Plan FY2003 Performance Output Goals	Key Events FY2004-2007 Performance Output Goals
<ul style="list-style-type: none"> • Deploy 6 PAPI systems at various locations. 	<ul style="list-style-type: none"> • Procure 12 additional PAPI systems and perform regional installations at approximately 47 locations. 	<ul style="list-style-type: none"> • Continue to procure and install PAPI equipment to replace the current inventory of VASI systems in the NAS.

Category 3: 3A01; Navigation and Landing Aids: 3A01K; Instrument Approach Procedures Automation;

Primary Goal: 2.1 Secondary Goal(s): n/a

Program Name and Outcome Goal	FY2001 Program Accomplishments/Status Performance Output Goals
Instrument Approach Procedures Automation (IAPA). Improve system efficiency to the NAS by providing automated tools, including the ability to digitize maps and charts, that allow FAA specialists to develop more timely and accurate instrument approaches for pilots into airports clear of obstacles such as radio towers, buildings, and trees. In addition, the automated tools will meet expanding air traffic control needs (e.g., the FAA receives 30,000 annual requests to erect more obstacles near airports. The automated tools help to reduce the time it takes to evaluate, revise, and update the approaches).	<ul style="list-style-type: none"> • Completed programming for RNP, missed approach segments, precipitous terrain, and use of terrain data for all segments. • Developed fly-ability tool for delivery to users. • Assessed feasibility of porting IAPA to personnel computer platform, purchased prototype equipment, and began the porting process. • Maintained the current production system, including numerous new criteria changes. • Configured new servers and completed delivery of 1:24,000 maps. • Purchased replacement printers. • Purchased necessary software to provide drawing capabilities.

Program Plan FY2002 Performance Output Goals	Program Plan FY2003 Performance Output Goals	Key Events FY2004-2007 Performance Output Goals
<ul style="list-style-type: none"> • Complete porting software to a new platform. • Begin testing and certification process. • Purchase new IAPA workstations. • Maintain the current production system, including changes to criteria. • Develop, certify, and deliver fly-ability tool and other suite of tools required to support the CAST plan. • Purchase necessary software to provide drawing capabilities. • Design automated obstacle evaluation tool. • Purchase servers and associated hardware to support instrument flight procedures (IFP) database. • Develop interface between IFP database and instrument procedures automation system (IPAS). 	<ul style="list-style-type: none"> • Certify and deploy new IAPA systems. • Continue to develop all approach types and segments. • Continue to develop suite of tools to deploy to the regions in support of CAST plan. • Maintain established programming and keep pace with criteria changes. • Provide contractor assistance for obstacle evaluation services. • Continue design of obstacle evaluation tool. • Purchase hardware and software to support data warehousing. • Develop interface between IFP database and IPAS. • Expand development of digital charts to provide data for the automated tools. • Replace obsolete cartographic workstations and reproductions hardware. • Provide access interface to critical data to update source information. • Upgrade software support for obstacle evaluation, visual charts, and en route charts. 	<ul style="list-style-type: none"> • Continue to develop suite of tools to deploy to the regions in support of CAST plan. • Maintain established programming and keep pace with criteria changes. • Continue design and development of obstacle evaluation tool. • Complete obstacle evaluation centralization database and integration. • Replace end-of-life cycle peripheral equipment for IPAS. • Purchase hardware and software as necessary to support IPAS, obstacle evaluation, and IFP database. • Continue to expand storage capacity. • Continue to replace cartographic workstations and reproduction hardware. • Continue to upgrade software for aerocharts. • Continue to digitize charts for the automated tools.

Category 3: 3A01; Navigation and Landing Aids: 3A01L; Navigational and Landing Aids – Service Life Extension Program (Long-Range Navigation – C);

Primary Goal: 2.1 Secondary Goal(s): n/a

Program Name and Outcome Goal	FY2001 Program Accomplishments/Status Performance Output Goals
Long-Range Navigation – C (LORAN-C) Monitors and Transmitter Enhancements. Support system efficiency by determining whether LORAN-C can provide navigation and other benefits to aviation.	<ul style="list-style-type: none"> • Developed and tested all in-view digital signal processing receivers. • Developed and tested magnetic (H-Field) antenna to solve precipitation static problems.

Program Plan FY2002 Performance Output Goals	Program Plan FY2003 Performance Output Goals	Key Events FY2004-2007 Performance Output Goals
<ul style="list-style-type: none"> • Provide technical report to the DOT regarding capabilities of LORAN-C to support aviation navigation and other requirements. • Provide recommendation to DOT regarding whether LORAN-C services should continue. 	<ul style="list-style-type: none"> • Continue enhancements and re-capitalization of LORAN-C system. 	<ul style="list-style-type: none"> • n/a

Category 3: 3A01; Navigation and Landing Aids: 3A01M; Navigation and Landing Aids – Service Life Extension Program;

Primary Goal: 2.1

Secondary Goal(s): n/a

Program Name and Outcome Goal	FY2001 Program Accomplishments/Status Performance Output Goals
Visual Navigation Aids – Sustain, Replace, Relocate. Improve system efficiency in the NAS by replacing aging, obsolete visual navigational aids as well as other ground-based navigation and landing aids that are necessary in order to maintain en route, approach, and landing capabilities at various airports throughout the United States.	<ul style="list-style-type: none"> • n/a

Program Plan FY2002 Performance Output Goals	Program Plan FY2003 Performance Output Goals	Key Events FY2004-2007 Performance Output Goals
<ul style="list-style-type: none"> • Deploy 1 ALSF-2. 	<ul style="list-style-type: none"> • Deploy 2 ALSF-2. • Deploy 2 MALSR. 	<ul style="list-style-type: none"> • Continue procurement and installation of various visual navigational aids as well as other ground-based navigation and landing aids.

Category 3: 3A02; Oceanic Automation System;

Primary Goal: 2.1/2.1.5

Secondary Goal(s): n/a

Program Name and Outcome Goal	FY2001 Program Accomplishments/Status Performance Output Goals
Advanced Technologies & Oceanic Procedures (ATOP). Increase system efficiency in all oceanic ARTCCs through the modernization of the oceanic air traffic control systems. When in place, the new integrated satellite-based system combined with new air traffic control procedures will render a new concept of operations, providing significant efficiency benefits to both the FAA and its customers. The ATOP system, without reliance on paper strips, will provide a new platform for delivering customer benefits through increased air traffic control efficiencies and capacity; a fully integrated flight data processor, radar data processor, and satellite-based data link communication and surveillance (automatic dependent surveillance-address (ADS-A)); and controller tools, such as conflict probe. In addition, the system will enable reduced separation standards – 30/30 longitudinal/latitudinal separation, resulting in the most efficient oceanic airspace in the world.	<ul style="list-style-type: none"> • Released ATOP RFO. • Completed evaluation of vendor offers. • Completed ATOP JRC, securing approved acquisition program baseline. • Awarded ATOP contract.

Program Plan FY2002 Performance Output Goals	Program Plan FY2003 Performance Output Goals	Key Events FY2004-2007 Performance Output Goals
<ul style="list-style-type: none"> • Deliver “test bed” procedural system to the WJHTC. • Complete procedural system FAT. 	<ul style="list-style-type: none"> • Complete Oakland (Key Site) ARTCC procedural system IOC. 	<ul style="list-style-type: none"> • Complete New York ARTCC procedural system IOC. • Complete Anchorage ARTCC radar/system IOC.

Category 3: 3A03; Gulf of Mexico Offshore Program;

Primary Goal: 2.1/2.1.2

Secondary Goal(s): n/a

Program Name and Outcome Goal	FY2001 Program Accomplishments/Status Performance Output Goals
<p>Gulf of Mexico Offshore Program (GOMP). Develop an approach to improve efficiency and capacity while enhancing the currently inadequate communication coverage over the GOM. This project is comprised of two systems: the buoy communications system (BCS) and the VHF extended range network (VERN). They are directed at expanding direct controller-pilot VHF radio communications. The combination of the BCS and VERN will improve efficiency and capacity through enhanced communications in the en route portion of the GOM above 18,000 ft. These enhancements answer current shortfalls as well as proactively address future anticipated growth and user demand for efficient use of the GOM airspace.</p>	<ul style="list-style-type: none"> • Awarded BCS production contract. • Initiated production buoy #3 refurbishment. • Continued to support VERN and satellite telecommunications. • Completed VERN operator maintenance training. • Completed VERN certification and IOC.

Program Plan FY2002 Performance Output Goals	Program Plan FY2003 Performance Output Goals	Key Events FY2004-2007 Performance Output Goals
<ul style="list-style-type: none"> • Transfer VERN to operational control of Houston ARTCC in support of NAS Handoff. • Complete construction/refurbishment of production buoys #2, 3, and 4. • Conduct and complete the BCS Provisioning Conference. • Complete environmental test, production acceptance test, site acceptance test, system integration and multi-buoy test, and operational test for 2 out of 4 production buoys. • Conduct and complete FCA/PCA with National Data Buoy Center (NDBC). • Conduct several 4-day BCS training course with airway facilities technicians. • Initiate multi-buoy upgrades at Houston ARTCC. • Deliver first operational buoy. • Complete IOC for 2 production buoys. 	<ul style="list-style-type: none"> • Commission 3 BCS production buoys into the NAS. • Continue to support 4 BCS buoys. • Complete testing on last buoy. • Maintain 3 production buoys in the GOM. • Complete full operating capability (FOC). • Conduct IOT&E. 	<ul style="list-style-type: none"> • Transfer BCS operational control of Houston ARTCC via NAS Handoff. • Maintain all production buoys. • Refurbish 2 BCS production buoys.

Category 3: 3A04; Voice Switching and Control System;

- Voice Switching and Control System – Voice Switching and Control System Control System Upgrade
- Voice Switching and Control System – Technology Refresh

Primary Goal: 2.1/2.1.5**Secondary Goal(s): n/a**

Program Name and Outcome Goal	FY2001 Program Accomplishments/Status Performance Output Goals
Voice Switching and Control System (VSCS) Programs. Improve operational efficiency and effectiveness of the NAS by replacing and upgrading the obsolete, non-supportable VSCS hardware and software in all ARTCCs. The sustainment activities planned under this program include software upgrades, power supply upgrades, position electronic module upgrades, display module upgrades, and system expansions. Through the performance of these sustainment activities, the VSCS Program will provide improved air traffic control services within the en route environment.	<ul style="list-style-type: none">• Delivered final F&E software baseline to 6 of 21 ARTCCs.• Delivered VSCS hardware to 5 choke point sectors, providing for expanded air traffic services in the NAS.

Program Plan FY2002 Performance Output Goals	Program Plan FY2003 Performance Output Goals	Key Events FY2004-2007 Performance Output Goals
<ul style="list-style-type: none">• Procure 21 of 21 VSCS servers for the ARTCCs.• Procure and deliver new cutover switch PCs and laser printers for the VSCS backup and training system at 21 of 21 ARTCCs.• Deliver VSCS hardware to additional 8 choke point sectors, providing expanded air traffic operations in the NAS.• Initiate procurement to replace/upgrade the contractor traffic simulation unit (CTSU), which is used to perform system loading requirements for all formal baseline verifications of VSCS functions.	<ul style="list-style-type: none">• Initiate technology refresh activities for the sustainment of the VSCS.	<ul style="list-style-type: none">• Continue technology refresh activities for the sustainment of VSCS in FY 2004-2007.

Category 4: Improve the Reliability of the National Airspace System

Category 4: 4A01; Guam Center Radar Approach Control – Relocate;

Primary Goal: 2.1

Secondary Goal(s): n/a

Program Name and Outcome Goal	FY2001 Program Accomplishments/Status Performance Output Goals
Relocated Guam Center Radar Approach Control (CERAP). Improve system efficiency at the Guam CERAP by relocating operations from the existing CERAP at Andersen AFB to the FAA Base Building at the Agana International Airport. The existing base building at the Agana International Airport will be renovated and expanded to accommodate CERAP operations, NAS equipment, and associated environmental support equipment.	<ul style="list-style-type: none"> Funding was not available in FY 2001.

Program Plan FY2002 Performance Output Goals	Program Plan FY2003 Performance Output Goals	Key Events FY2004-2007 Performance Output Goals
<ul style="list-style-type: none"> Construct/remodel the base building at the Agana International Airport. Begin procurement of power system. 	<ul style="list-style-type: none"> Complete construction/remodeling activities of the base building. Install power system. Begin procurement/installation of NAS electronics systems. Procure and install the MicroEARTS automation system. 	<ul style="list-style-type: none"> Complete installation of the NAS equipment systems. Commission operations at new Guam CERAP. Conduct clean-up activities at old CERAP facility. Dispose equipment/systems.

Category 4: 4A02; Terminal Voice Switch Replacement/Enhancement Terminal Voice Switch;

Primary Goal: 2.1/2.1.5

Secondary Goal(s): n/a

Program Name and Outcome Goal	FY2001 Program Accomplishments/Status Performance Output Goals
Enhanced Terminal Voice Switch (ETVS). Improve NAS system efficiency by replacing the electromechanical and aging electronic switches at all ATCTs and TRACON facilities. Through the deployment of modern voice switches, the ETVS Program provides terminal facilities with modern reliable voice-switching capabilities, which enables efficient and effective air traffic operations.	<ul style="list-style-type: none"> Replaced 57 of 212 terminal voice switches.

Program Plan FY2002 Performance Output Goals	Program Plan FY2003 Performance Output Goals	Key Events FY2004-2007 Performance Output Goals
<ul style="list-style-type: none"> Replace an additional 24 of 212 terminal voice switches. 	<ul style="list-style-type: none"> Replace an additional 17 of 212 terminal voice switches. 	<ul style="list-style-type: none"> Replace an additional 21 of 212 terminal voice switches in 2004. Replace remaining 87 of 212 terminal voice switches in 2005 through 2007.

Category 4: 4A03; Airport Cable Loop Systems – Sustained Support;

Primary Goal: 2.1

Secondary Goal(s): n/a

Program Name and Outcome Goal	FY2001 Program Accomplishments/Status Performance Output Goals
Airport Cable Loop Systems Sustained Support. Support agency goals by improving systems efficiency by enhancing communications outages and increased system performance from multiple pathways.	<ul style="list-style-type: none"> • Purchased fiber optic installation equipment. • Completed fiber optic installations at 1 or 2 large airports. • Began fiber optic installations at 1 or 2 large airports. • Provide FAA Academy-based training.

Program Plan FY2002 Performance Output Goals	Program Plan FY2003 Performance Output Goals	Key Events FY2004-2007 Performance Output Goals
<ul style="list-style-type: none"> • Continue to replace airport system communication cabling system where airport construction or system installations occur. 	<ul style="list-style-type: none"> • Continue to replace airport system communication cabling system where airport construction or system installations occur. 	<ul style="list-style-type: none"> • Continue to replace airport system communication cabling system where airport construction or system installations occur.

Category 4: 4B01; En Route Automation Program;

(A) En Route Automation Program – En Route Enhancements Program

(B) En Route Automation Program – Flight Data Input/Output Replacement

(C) En Route Automation Program – Direct Access Radar Channel

(D) En Route Automation Program – Host/Oceanic Computer System Replacement

(E) En Route Automation Program – En Route Communications Gateway

(F) En Route Automation Program – En Route System Modification and Voice Switching and Control System Electronic Module/Position Electronic Module Relocation

(A) En Route Automation Program – En Route Enhancements Program

Primary Goal: 2.1/2.1.2

Secondary Goal(s): n/a

Program Name and Outcome Goal	FY2001 Program Accomplishments/Status Performance Output Goals
En Route Automation Program – En Route Enhancements Program. Support FAA system efficiency goals by maintaining and enhancing host computer system (HCS) and DSR system software at the ARTCCs.	En route enhancements developed during FY 2001 include the following: <ul style="list-style-type: none"> • Deployed safety-critical fixes to support en route minimum safe altitude warning (EMSAW) corrections. • Changed flight plans to facilitate exchange of ICAO compliant flight plan messages with Canada and Mexico. • Developed multiple flight plan readout on DSR. • Developed common message set (CMS) to facilitate data exchange with Free Flight Phase 1 Programs' URET core capability limited deployment (CCLD) and CTAS. • Developed host communication via CPDLC Build 1. • Sourced national and local patches, as space allowed, to reduce maintenance burden.

	<ul style="list-style-type: none"> • Implemented system improvements for airway facilities to facilitate system operations and maintenance. • Developed multiple flight plan readout, range readout, continuous range readout, and multiple dwell lock user functionality for DSR. • Developed BCC20, including important computer-human interface (CHI) enhancements, annotation feature for air traffic, and upgrades to support URET.
--	---

Program Plan FY2002 Performance Output Goals	Program Plan FY2003 Performance Output Goals	Key Events FY2004-2007 Performance Output Goals
En route enhancements planned during FY 2002 include the following: <ul style="list-style-type: none"> • Complete software adaptation of up to 50,000 fixes to support route structuring. • Enhance safety and controller efficiency by adding 4th line to the DSR full data block. • Provide interface for transitioning from peripheral adapter module replacement item (PAMRI) to ECG. • Upgrade CMS functionality for URET CCLD, CTAS, and ETMS enhancements. • Facilitate display of RVSM capability for MicroEARTS. • Source national and local patches, as space allows, reducing maintenance burden. • Implement improvements to facilitate system operations and maintenance. • Develop R-console display replacement enhancements. • Develop BCC21 with features such as 4th line of the data block, interactive data block, and toolbar enhancements • Perform upgrades to support URET. 	En route enhancements planned during FY 2003 include the following: <ul style="list-style-type: none"> • Accommodate national RVSM capability. • Accommodate national equipment restricted route enhancements. • Enhance ICAO compliant flight plan processing to facilitate exchange of ICAO compliant flight plan messages with Canada and Mexico. • Source national and local patches, as space allows, reducing maintenance burden. • Implement improvements to facilitate system operations and maintenance. • Provide command support enhancements. • Enhance target filtering capability. • Provide upgrades to computer readout device. • Enhance surveillance range settings. • Enhance range readout. • Complete R-position display replacement. 	En route enhancements for the period FY 2004-2007 include the following: <ul style="list-style-type: none"> • Continue to provide software evolution, as prioritized and approved by air traffic and airway facilities, to provide new capabilities and enhancements to the host and DSR software and to address critical software problems. • Support ERAM initiative.

(B) En Route Automation Program – Flight Data Input/Output Replacement

Primary Goal: 2.1/2.1.2

Secondary Goal(s): n/a

Program Name and Outcome Goal	FY2001 Program Accomplishments/Status Performance Output Goals
En Route Automation Program – Flight Data Input/Output (FDIO) Replacement. Support the FAA system efficiency goal by maintaining and replacing obsolete FDIO equipment.	<ul style="list-style-type: none"> • Completed installation of FDIO at 80 terminal facilities.

Program Plan FY2002 Performance Output Goals	Program Plan FY2003 Performance Output Goals	Key Events FY2004-2007 Performance Output Goals
<ul style="list-style-type: none"> Complete installation of FDIO at 80 terminal facilities. 	<ul style="list-style-type: none"> Complete installation of FDIO at 80 terminal facilities. 	<ul style="list-style-type: none"> Complete installation of FDIO at 80 terminal facilities.

(C) En Route Automation Program – Direct Access Radar Channel

Primary Goal: 2.1/2.1.2

Secondary Goal(s): n/a

Program Name and Outcome Goal	FY2001 Program Accomplishments/Status Performance Output Goals
En Route Automation Program – Direct Access Radar Channel (DARC). Maintain an enhanced independent back-up radar automation system capable of continuous improvements to functionality. Eliminate legacy hardware and interfaces, and replace current software architecture with one that provides hardware independence.	<ul style="list-style-type: none"> Completed development of Phase I (display processor). Completed airway facilities training for Phase I. Achieved successful data processor replacement at key sites. Completed quality processor functionality upgrade to detect radar failures. Corrected 116 problem trouble reports and 1 configuration control decision.

Program Plan FY2002 Performance Output Goals	Program Plan FY2003 Performance Output Goals	Key Events FY2004-2007 Performance Output Goals
<ul style="list-style-type: none"> Develop control processor prototype. 	<ul style="list-style-type: none"> Deploy control processor replacement. Add conflict alert. Add Mode C (altitude reporting) intruder alert. Reduce DSR to DARC system interfaces to improve supportability, expandability, and system response time. 	<ul style="list-style-type: none"> Continue functional enhancements based on air traffic and airway facilities evolving requirements and priorities.

(D) En Route Automation Program – Host/Oceanic Computer System Replacement

Primary Goal: 2.1/2.1.2

Secondary Goal(s): n/a

Program Name and Outcome Goal	FY2001 Program Accomplishments/Status Performance Output Goals
En Route Automation Program – Host/Oceanic Computer System Replacement (HOCSR). Maintain the reliability and performance of the host and oceanic computer systems within the NAS so that future major outages of air traffic control services do not occur. HOCSR provides operation air traffic control capabilities in the mission areas of safety and capacity, and provides secondary benefits in the mission area of productivity/business practices.	<ul style="list-style-type: none"> Delivered Phase 2 to Honolulu, HI, control centers. Achieved government acceptance of Phase 3 at the WJHTC August 20, 2001. Achieved government acceptance of Phase 3 at the FAA Aeronautical Center (FAAAC) August 23, 2001. Completed installation of Phase 3 equipment at Denver, Key Site.

Program Plan FY2002 Performance Output Goals	Program Plan FY2003 Performance Output Goals	Key Events FY2004-2007 Performance Output Goals
<ul style="list-style-type: none"> Complete government acceptance of Phase 3 at 13 en route operational sites (13 sites) 13/23. Complete Phase 4 keyboard video display terminal printer replacement procurement and GA for all 23 sites. Complete Phase 4 high-speed printer procurement for all 23 sites. 	<ul style="list-style-type: none"> Complete government acceptance of Phase 3 at all oceanic operational sites (3 sites) and the remaining 7 en route sites 10/23. Complete government acceptance of Phase 4 high-speed printer replacements at all 23 operational sites. 	<ul style="list-style-type: none"> Plan/deploy tape replacement and keyboard video display terminal. Sustain terminal cluster control unit (TCU) switches thru 2008.

(E) En Route Automation Program – En Route Communications Gateway

Primary Goal: 2.1/2.1.2

Secondary Goal(s): n/a

Program Name and Outcome Goal	FY2001 Program Accomplishments/Status Performance Output Goals
En Route Automation Program – En Route Communications Gateway (ECG). Increase system capacity and expandability by minimizing the time that full operational services are not available, and by enabling the integration of new surveillance technology, the introduction of new interface standards and formats, and connection to additional remote equipment (e.g., radar). The ECG infrastructure will provide the automation system capacity and expandability required to support anticipated increases in air traffic and changes in the operational environment. By providing a flexible and expandable architecture, ECG must be deployed prior to the introduction of new services, systems, and capabilities.	<ul style="list-style-type: none"> Completed SRR. Completed software development technical interchange meeting. Completed hardware design technical interchange meeting.

Program Plan FY2002 Performance Output Goals	Program Plan FY2003 Performance Output Goals	Key Events FY2004-2007 Performance Output Goals
<ul style="list-style-type: none"> Deliver equipment to WJHTC labs (PAMRI Support Facility (PSF), ECG maintenance support system (EMSS), standalone simulator (SAS), System Support Facility (SSF), and Instruction and Interoperability Facility (I²F)). 	<ul style="list-style-type: none"> Achieve WJHTC government acceptance. Deliver FAAAC equipment. Achieve FAAAC government acceptance. Deliver equipment to Key Site (Seattle ARTCC). 	<ul style="list-style-type: none"> Achieve Key Site government acceptance. Achieve ORD at 21 of 21 sites.

(F) En Route Automation Program – En Route System Modification and Voice Switching and Control System Electronic Module /Position Electronic Module Relocation

Primary Goal: 2.1/2.1.2

Secondary Goal(s): n/a

Program Name and Outcome Goal	FY2001 Program Accomplishments/Status Performance Output Goals
En Route Automation Program – En Route System Modifications (ERSM)	<ul style="list-style-type: none"> Produced DSR display processing upgrade comparative analysis.

<p>and Voice Switching and Control System (VSCS) Electronic Module (VEM)/Position Electronic Module (PEM) Relocation. Provide product modifications and upgrades to replace aging or obsolete components while ensuring that national, agency, and customer requirements are met through cost effective methods capitalizing on technology evolution, supporting growth in NAS functionality and providing system flexibility.</p>	<ul style="list-style-type: none"> • Completed developmental engineering effort for main display monitor (MDM) upgrade. • Conducted prototype demonstrations of display processing and MDM display replacement for air traffic and airway facilities. • Developed and demonstrated an engineering approach for a better and less costly solution for VEM/PEM relocation by combining the relocation with MDM replacement. Demonstrations of the improved approach to air traffic and airway facilities users resulted in positive agreement of both user groups. • Provided additional tape drive capabilities to sites to ensure that system availability requirements are met and that maintenance objectives can be achieved. • Provided test and training ring modification to allow physical isolation, or detachment, of support and operational DSR systems. This modification reduces risks associated with the physical coupling of networks used for simulation/training and air traffic control operations. • Provided enhanced direct access radar channel (EDARC) and EDARC system interface (ESI) maintainability analysis. The analysis proved that system availability and maintainability did not require system modification; sustainment and purchase of a limited quantity of components was the most cost-effective approach to extending the ESI system life.
---	---

Program Plan FY2002 Performance Output Goals	Program Plan FY2003 Performance Output Goals	Key Events FY2004-2007 Performance Output Goals
<ul style="list-style-type: none"> • Continue to develop DSR radar-console display processing technical upgrade. • Develop and begin deployment activities for MDM replacement, accompanied by relocation of VEM/PEM hardware. • Coordinate and demonstrate display and display thread CHI development and functional upgrade requirements definitions with Air Traffic Display System Replacement Evolution Team (ATDET), Professional Airways System Specialists (PASS), and National Air Traffic Controllers Association (NATCA). • Develop design specifications and change packages for technology refresh of DSR storage and support devices. 	<ul style="list-style-type: none"> • Complete development of display processing technical upgrade. • Continue development and deployment of storage and support devices. • Deploy MDM replacement. 	<ul style="list-style-type: none"> • Complete MDM replacement. • Deploy DSR radar-console display processing upgrade. • Provide storage and support device technology refresh/upgrades of hardware at ARTCCs and support sites. • Develop a refresh package and install a DSR data-console processor upgrade. • Develop design specifications and change packages for refresh of the DSR backup channel.

Category 4: 4B02; Air Route Traffic Control Center Building Improvements/Plant Improvements;

Primary Goal: 2.1/2.1.5

Secondary Goal(s): n/a

Program Name and Outcome Goal	FY2001 Program Accomplishments/Status Performance Output Goals
<p>Air Route Traffic Control Center (ARTCC) Modernization/Expansion – ARTCC Modernization. Support operational efficiency and effectiveness in maintaining the integrity of 21 ARTCCs, 3 CERAP facilities, and the ATCSCC, and ensure facility sustainment, modernization, and expansion to support air traffic control operations. This will aid in the integration and transition of new NAS systems within ARTCCs, CERAPs, and the ATCSCC, and management of the life cycle of these facilities.</p>	<ul style="list-style-type: none"> • Funded Control Systems International-TAC (CSI-TAC) contract, installation, and implementation of fire alarm annunciation system at 21 centers. • Funded chiller replacements at 4 sites. • Funded administration wing rehabilitation/expansion at 1 site. • Funded sustainment projects at all 21 centers. • Funded various headquarter contracts for technical and programmatic support. • Provided funding to support FAA Telecommunications Infrastructure (FTI) equipment area modernization requirements. • Established en route facilities and building systems (EFABS) product team; formalized lines of communication with en route users. Reprioritized remaining ARTCC modernization projects. <p>Note: These funded accomplishments are activities not completed as reported by ATS. Agreement could not be reached to move these unaccomplished items to FY 2002.</p>

Program Plan FY2002 Performance Output Goals	Program Plan FY2003 Performance Output Goals	Key Events FY2004-2007 Performance Output Goals
<ul style="list-style-type: none"> • Modernization/Sustainment: <ul style="list-style-type: none"> ○ Modernize air traffic control automation wing 2nd floor and M-1 control room at 2 sites ○ Modernize/renovate M-1 control room at 2 sites ○ Identify and fund mini-modification facility sustainment projects at 21 sites ○ Manage the implementation of 12 ARTCC fire alarm projects • Transition/Integration Management: <ul style="list-style-type: none"> ○ Develop standard ARTCC layout drawings and standard transition plan and initiate site-specific end-state drawings ○ Initiate an integrated resource requirement document for en route facilities NAS system deployment and facility modernization. 	<ul style="list-style-type: none"> • Modernization/Sustainment: <ul style="list-style-type: none"> ○ Modernize air traffic control automation wing 2nd floor and M-1 control room at 2 sites ○ Modernize/renovate M-1 control room at 1 site ○ Identify and fund mini- modification facility sustainment projects at 21 sites ○ Manage the implementation of 9 ARTCC fire alarm projects • Transition/Integration Management: <ul style="list-style-type: none"> ○ Complete remaining end-state site-specific drawing revisions ○ Conduct facility administrative space requirements analysis ○ Manage the smooth transition and integration of the NAS system and the en route facility 	<ul style="list-style-type: none"> • Modernization/Sustainment: <ul style="list-style-type: none"> ○ Modernize air traffic control automation wing 2nd floor and M-1 control room at 5 sites ○ Modernize/renovate M-1 control room only at 6 sites ○ Modernize administrative wing rehabilitation/expansion at 5 sites ○ Identify and fund mini- modification facility sustainment projects at 21 sites ○ Manage the implementation of 21 ARTCC fire alarm projects • Transition/Integration Management: <ul style="list-style-type: none"> ○ Manage the smooth transition and integration of the NAS system and the en route facility

Category 4: 4B03; Air Traffic Management;

(A) Air Traffic Management – Air Traffic Management Functionality Development/Deployment – Departure Spacing Program

(B) Air Traffic Management – Traffic Flow Management Infrastructure – Infrastructure Modernization

(A) Air Traffic Management – Air Traffic Management Functionality Development/Deployment – Departure Spacing Program

Primary Goal: 2.1/2.1.2

Secondary Goal(s): n/a

Program Name and Outcome Goal	FY2001 Program Accomplishments/Status Performance Output Goals
Air Traffic Management – Air Traffic Management (ATM) Functionality Development/Deployment – Departure Spacing Program (DSP). Continue development of the DSP prototype and eventual integration of DSP functionality into a modernized TFM infrastructure, which will result in a reduction of system-wide delays while facilitating achievement of CDM and free flight operating concepts.	<ul style="list-style-type: none"> • Achieved operational DSP at David J. Hurley ATCSCC. • Deployed DSP at 3 additional New York facilities. • Deployed Phase I at Boston ARTCC. • Achieved operational barcode processing capability for flight strips at 7 New York area ATCTs, significantly reducing tower workload during periods of heavy departure activity.

Program Plan FY2002 Performance Output Goals	Program Plan FY2003 Performance Output Goals	Key Events FY2004-2007 Performance Output Goals
<ul style="list-style-type: none"> • Continue operation and mandated expansions of DSP prototypes at the Boston ARTCC and Washington ARTCC. • Continue enhancements and software upgrades to DSP at existing facilities. • Develop and utilize DSP integrations and Operations Lab in northeast corridor operations concept refinement. 	<ul style="list-style-type: none"> • Sustain DSP basic capability at existing facilities. • Integrate DSP operations with Washington ARTCC—inclusive of departure positions in associated facilities. • Integrate departure positions in associated facilities. • Upgrade lab facility development to evaluate NAS expansion. • Improve entire existing DSP system operations. • Begin analysis of COTS/NDI hardware and software and systems necessary to work in conjunction with TFM infrastructure and NAS infrastructure to support DSP operations. 	<ul style="list-style-type: none"> • Conduct testing and provide additional sustainment of northeast corridor. • Research and evaluate NAS expansion of DSP.

(B) Air Traffic Management – Traffic Flow Management Infrastructure – Infrastructure Modernization

Primary Goal: 2.1/2.1.2, 2.1.5

Secondary Goal(s): n/a

Program Name and Outcome Goal	FY2001 Program Accomplishments/Status Performance Output Goals
Air Traffic Management – Traffic Flow Management (TFM) Infrastructure – Infrastructure Modernization. Implement the required TFM infrastructure modifications and enhancements to support increased demand for flight planning data exchange services.	<ul style="list-style-type: none"> • No current FY 2001 funding to accomplish goals. • Planned future development and initiated systems engineering plan for TFM modernization/technology refresh.

Program Plan FY2002 Performance Output Goals	Program Plan FY2003 Performance Output Goals	Key Events FY2004-2007 Performance Output Goals
<ul style="list-style-type: none"> • Provide planning, requirements definition for platform development, communications efficiency studies, and development of software architecture requirements (current goals funded). 	<ul style="list-style-type: none"> • Continue hardware refresh, software redesign and development, and integration of standalone prototype capability. 	<ul style="list-style-type: none"> • Refresh current field site workstations through site planning, analysis, and key site implementation. Database management system development consistent with projected capabilities, planned hardware and software, and communications requirements. • Re-engineer TFM architecture so that it supports improved access to TFM information and integration of standalone capabilities.

Category 4: 4C01; Critical Telecommunications Support;

Primary Goal: 2.1/2.1.5

Secondary Goal(s): n/a

Program Name and Outcome Goal	FY2001 Program Accomplishments/Status Performance Output Goals
Critical Telecommunications Support (CTS). Improve system efficiency and effectiveness by providing changes to existing telecommunications systems at over 5,000 facilities within the NAS. CTS provides funds for air traffic communications diversity, non-programmed telecommunications additions, moves, modifications, and emergency requirements.	<ul style="list-style-type: none"> • Installed emergency circuits for operations at Northwest Mountain Region after 2001 earthquake. • Replaced wind damaged Alaska Region radome and antenna. • Funded emergency and unplanned telecommunications requirements.

Program Plan FY2002 Performance Output Goals	Program Plan FY2003 Performance Output Goals	Key Events FY2004-2007 Performance Output Goals
<ul style="list-style-type: none"> • Install 20 new operational circuits for ATS mission support. • Upgrade telecommunications interfaces in ARTCCs. • Relocate and add operational telecommunications services required by airspace reconfigurations. • Provide emergency telecommunications restoration activities. 	<ul style="list-style-type: none"> • Install 15 new operational circuits for ATS mission support. • Provide telecommunications diversity at 10 remote sites. • Relocate and add operational telecommunications services required by airspace reconfigurations. • Provide emergency telecommunications restoration activities. 	<ul style="list-style-type: none"> • Provide new operational circuits as required for ATS mission support. • Relocate and add operational telecommunications services as required by airspace reconfigurations. • Provide telecommunications diversity as required. • Continue to provide emergency telecommunications restoration activities and “pop-up” requirements from ATS.

Category 4: 4C02; Federal Aviation Administration Telecommunications Infrastructure;

Primary Goal: 2.1/2.1.5

Secondary Goal(s): n/a

Program Name and Outcome Goal	FY2001 Program Accomplishments/Status Performance Output Goals
Federal Aviation Administration (FAA) Telecommunications Infrastructure (FTI). Improve system efficiency by integrating operational	<ul style="list-style-type: none"> • FTI in program acquisition phase.

telecommunications services and by providing highly reliable telecommunications that are critical to the NAS. These services will provide lower costs, improved bandwidth utilization, improved flexibility and security, and modern business processes.	
--	--

Program Plan FY2002 Performance Output Goals	Program Plan FY2003 Performance Output Goals	Key Events FY2004-2007 Performance Output Goals
<ul style="list-style-type: none"> • Award FTI contract. • Complete development of telecommunications information management system (TIMS) ordering capability for FTI. • Complete ARTCC telecommunications modernization for FTI at New York Center. 	<ul style="list-style-type: none"> • Achieve in-service decision for FTI. • Achieve security certification and authorization (SCAP). • Complete development of integrated business system and network manager user interface. • Establish FTI telecommunications infrastructure for inter air traffic control center backbone at 22 en route facilities. • Initiate transition for leased interfacility NAS communications system (LINCS), data multiplexing network (DMN), and national airspace data interchange network (NADIN). 	<ul style="list-style-type: none"> • Initiate transition to FTI for FAA Telecommunication Satellite (FAATSAT) in 2004. • Initiate transition to FTI for Hawaiian LINCS in 2005. • Complete transition for NADIN in 2005. • Initiate transition to FTI for BWM in 2005. • Complete transition for FAATSAT and Hawaiian LINCS in 2006. • Complete transition for DMN and LINCS in 2007.

Category 4: 4C03; Air-to-Ground Communications Infrastructure;

- **Communications Facilities Enhancement – Expansion**
- **Communications Facilities Enhancement – Limited Radio Replacement Program**
- **Communications Facilities Enhancement – Air-to-Ground Communications Radio Frequency Interference Elimination**
- **Backup Emergency Communications – Replacement**
- **Radio Control Equipment**

Primary Goal: 2.1/2.1.5

Secondary Goal(s): n/a

Program Name and Outcome Goal	FY2001 Program Accomplishments/Status Performance Output Goals
Air-to-Ground (A/G) Communications Infrastructure Programs. Enhance operational efficiency and effectiveness through planned improvements to the A/G communications infrastructure that include replacement of aging and increasingly unreliable equipment, associate sites, and facility improvements, including the establishment of new facilities intended to broaden communications coverage.	<ul style="list-style-type: none"> • Communications facilities enhancement (CFE) procured 484 replacement radios, equipment racks, antennas, and towers. • Conducted CFE site preparation at 8 sites. • Procured and installed RFI equipment to maintain existing communications infrastructure. • Continued backup emergency communications (BUEC) systems integration, site preparation, and installation of 100 channels at 3 ARTCCs (completing 2 of the 3). • Procured radio control equipment (RCE) for new requirements, continued software upgrades, and installed 200 channels.

Program Plan FY2002 Performance Output Goals	Program Plan FY2003 Performance Output Goals	Key Events FY2004-2007 Performance Output Goals
<ul style="list-style-type: none"> • Procure CFE 375 replacement radios, equipment racks, antennas, and towers. • Deliver CFE equipment for the next 8 choke point sectors. • Procure and install RFI equipment to maintain existing communications infrastructure. • Continue BUEC systems integration, site preparation, and installation. Complete 1 ARTCC. • Procure RCE for new requirements, continue software upgrades, and install 200 channels. 	<ul style="list-style-type: none"> • Procure CFE 375 replacement radios, equipment racks, antennas, and towers. • Conduct CFE site preparation at 12 sites. • Procure and install RFI equipment to maintain existing communications infrastructure. • Continue BUEC systems integration, site preparation, and installation. Complete 3 ARTCCs. • Install 150 RCE channels. 	<ul style="list-style-type: none"> • Procure CFE 375 replacement radios, equipment racks, antennas, and towers. • Conduct CFE site preparation at 82 sites. • Procure and install RFI equipment to maintain existing communications infrastructure • Continue BUEC systems integration, site preparation, and installation. Complete 10 ARTCCs.

Category 4: 4C04; Voice Recorder Replacement Program;

Primary Goal: 2.1/2.1.5

Secondary Goal(s): n/a

Program Name and Outcome Goal	FY2001 Program Accomplishments/Status Performance Output Goals
Voice Recording Replacement Program (VRRP). Improve NAS system efficiency by replacing aging analog voice recording systems with modern digital voice recording systems (DVRS). DVRSs enable air traffic controllers to effectively record all voice communications between the controllers, pilots, and other ground-based air traffic control facilities, meeting the statutory requirement.	<ul style="list-style-type: none"> • Replaced an additional 29 of 530 voice recording systems.

Program Plan FY2002 Performance Output Goals	Program Plan FY2003 Performance Output Goals	Key Events FY2004-2007 Performance Output Goals
<ul style="list-style-type: none"> • Replace an additional 68 of 530 voice recording systems. 	<ul style="list-style-type: none"> • Replace an additional 62 of 530 voice recording systems. 	<ul style="list-style-type: none"> • Replace remaining 25 of 530 voice recording systems in 2004. • Perform 36 of 345 retrofits to previously delivered systems to bring them up to current hardware and software configurations in 2004. • Award follow-on contract to perform remaining 309 of 345 retrofits to previously procured systems to bring them up to current hardware and software configurations in FY 2005–2007, which will complete all the replacements planned for VRRP.

Category 4: 4C05; National Airspace System Infrastructure Management System;

Primary Goal: 2.1/2.1.5

Secondary Goal(s): 5.1

Program Name and Outcome Goal	FY2001 Program Accomplishments/Status Performance Output Goals
National Airspace System (NAS) Infrastructure Management System (NIMS) – Phase 2. Establish a National Operational Control Center (NOCC) and 3 strategically located operations control centers (OCC) to centralize information and technical expertise. Field a COTS-based information system that consists of distributed computers, integrated software and database applications, remote monitoring, and control capabilities. NIMS will provide the necessary tools to FAA maintenance personnel to support ATS in meeting demand for increasing services with diminished resources while maintaining safety.	<ul style="list-style-type: none"> • Achieved IOC for 3 OCCs. • Consolidated 7 general NAS maintenance control centers (GMCC) into OCCs. • Completed 7% of the system.

Program Plan FY2002 Performance Output Goals	Program Plan FY2003 Performance Output Goals	Key Events FY2004-2007 Performance Output Goals
<ul style="list-style-type: none"> • Achieve IOC for enterprise manager at NOCC and 3 OCCs. • Consolidate 12 GMCCs into OCCs. • Initiate technology refresh of Maintenance Data Terminals. • Begin transition of fielded remote maintenance monitoring systems (RMMS) to NIMS. • Completed 8% of the system; total completed: 15%. 	<ul style="list-style-type: none"> • Complete 1 GMCC consolidation. • Deploy facility maintenance logging tools to eliminate duplicate data entries. Overall cost and performance metrics utility and accuracy will be increased, enabling more objective capital investment decisions and maximizing the return on the investment. • Continue technology refresh of Maintenance Data Terminals. • Continue transition of fielded RMMS to NIMS. • Completed 11% of the system; total completed: 26%. 	<ul style="list-style-type: none"> • Complete deployment of NIMS functionality to 33 service operations centers (SOC) and over 300 work centers. • Retire legacy maintenance processor subsystem (MPS) hardware and software. • Continue technology refresh of Maintenance Data Terminals. • Initiate NIMS technology refresh for Phase 2 components. • Completed 74% of the system; total completed: 100%.

Category 4: 4C06; Flight Service Station Modernization;

Primary Goal: 6.1

Secondary Goal(s): 2.1

Program Name and Outcome Goal	FY2001 Program Accomplishments/Status Performance Output Goals
Flight Services Facilities (FSS) – Automated Flight Service Stations (AFSS) Facilities Sustainment. Optimize customer satisfaction with the safety, security, and efficiency of the air transportation system in the United States. This objective requires planning, evaluating, and controlling the system in such a manner as to enable optimizing customer satisfaction, providing funding options together with advantages and disadvantages, and then accomplishing modifications, sustainment actions, and expansions that address customer satisfaction.	<ul style="list-style-type: none"> • Completed UPS installations at 6 sites. • Completed HVAC upgrades at 3 sites. • Completed infrastructure improvements at 10 sites, including accessibility improvements, carpet replacement, facility rehabilitation, and lightning protection.

Program Plan FY2002 Performance Output Goals	Program Plan FY2003 Performance Output Goals	Key Events FY2004-2007 Performance Output Goals
<ul style="list-style-type: none"> Identify new systems to acquire in order to result in optimum customer satisfaction. Complete UPS installations at 9 sites. Complete HVAC upgrades at 3 sites. Perform minor infrastructure improvements at 10 sites, including roof and fire light safety, to OSHA standards. Improve NAS system efficiency by procuring power conditioning systems for the AFSS to alleviate power problems and accommodate any new load requirement from future systems. Upgrade and sustain leased and owned flight service stations (FSS) on a priority basis. 	<ul style="list-style-type: none"> Accomplish acquisitions that are most effective in terms of results. Complete UPS installations at 9 sites. Complete HVAC upgrades at 3 sites. Perform minor improvements at 10 sites, including roof and fire light safety, to meet OSHA standards. Improve NAS system efficiency by procuring power conditioning systems for the AFSS to alleviate power problems and accommodate any new load requirement from future systems. Upgrade and sustain leased and owned FSSs on a priority basis. 	<ul style="list-style-type: none"> Accomplish procurements that are most effective in terms of results. Complete UPS installations at 20 sites. Complete HVAC upgrades at 28 sites. Perform major rehabilitation at 30 sites, including roof and fire light safety, to OSHA standards Improve NAS system efficiency by procuring power conditioning systems for the AFSS to alleviate power problems and accommodate any new load requirement from future systems. Upgrade and sustain leased and owned FSSs on a priority basis.

Category 4: 4C07; Flight Services Automation System Operational and Supportability Implementation System;

Primary Goal: 2.1 Secondary Goal(s): n/a

Program Name and Outcome Goal	FY2001 Program Accomplishments/Status Performance Output Goals
Flight Service Automation System (FSAS) Operational and Supportability Implementation System (OASIS). Provide on-going operational support, enabling flight service specialists to more efficiently provide weather and flight information to GA pilots. The existing FSAS equipment is 1980s technology and is difficult to maintain and support. OASIS will provide significant improvement in the CHI by replacing the existing FSAS display with a graphical user interface. Additionally, new ergonomic equipment consoles will be installed.	<ul style="list-style-type: none"> Continued software development and testing.

Program Plan FY2002 Performance Output Goals	Program Plan FY2003 Performance Output Goals	Key Events FY2004-2007 Performance Output Goals
<ul style="list-style-type: none"> Procure 15 systems and install 1 system. Complete IOT&E. 	<ul style="list-style-type: none"> Continue to procure and install OASISs. 	<ul style="list-style-type: none"> Procure and install remaining OASISs. Install OASIS lease service last system for operational use (2005).

Category 4: 4C09; Flight Service Station Switch Modernization;

Primary Goal: 2.1/2.1.5

Secondary Goal(s): n/a

Program Name and Outcome Goal	FY2001 Program Accomplishments/Status Performance Output Goals
<p>Automated Flight Service Station Voice Switches. Provide pilots with significantly improved access to flight planning, weather, communications, and emergency services deemed essential to the conduct of safe and efficient flight. This modernization program will replace the aging, non-supportable voice switches at 61 AFSSs throughout the NAS and at 14 non-AFSSs located in Alaska. The principle enhancement of this program is a call transfer capability, enabling AFSSs to transfer A/G calls to other AFSSs during periods of low demand. When fully implemented, the call transfer capability will significantly reduce operational costs. Through the deployment of modern digital voice switches, the Automated FSS Voice Switches Program will significantly improve the operational and maintenance aspects of flight service operations.</p>	<ul style="list-style-type: none"> Delivered 4 of 8 small tower voice switch (STVS) systems to FSSs in Alaska.

Program Plan FY2002 Performance Output Goals	Program Plan FY2003 Performance Output Goals	Key Events FY2004-2007 Performance Output Goals
<ul style="list-style-type: none"> Deliver 4 of 8 STVS systems to FSSs in Alaska, which completes all FSS voice switch replacements in Alaska. Award automated FSS voice switches contract. 	<ul style="list-style-type: none"> Deliver 3 of 3 automated FSS voice switches testing systems and accept system into the NAS. 	<ul style="list-style-type: none"> Conduct OT&E and IOT&E in 2004. Install 7 of 61 voice switches to AFSSs throughout the NAS in 2005. Install an additional 11 of 61 voice switches to AFSSs throughout the NAS in 2006. Install an additional 11 of 61 voice switches to AFSSs throughout the NAS in 2007.

Category 4: 4C10; Alaskan National Airspace System Interfacility Communications System;

Primary Goal: 2.1/2.1.5

Secondary Goal(s): n/a

Program Name and Outcome Goal	FY2001 Program Accomplishments/Status Performance Output Goals
<p>Alaskan National Airspace System (NAS) Interfacility Communications System (ANICS) Satellite Network – Phase II. Improve system efficiency of the NAS by installing a new satellite telecommunications facility at locations where the FAA has experienced poor performing telecommunications. The increase of telecommunications availability provided by implementing ANICS sites corresponds to a direct increase in the availability of the NAS and improves air safety in Alaska.</p>	<ul style="list-style-type: none"> Purchased and engineered 3 Phase II ANICS sites. Installed 1 new Phase II ANICS site. Completed Phase II design to include all OSHA requirements. Completed standardized drawing package.

Program Plan FY2002 Performance Output Goals	Program Plan FY2003 Performance Output Goals	Key Events FY2004-2007 Performance Output Goals
<ul style="list-style-type: none"> Purchase and engineer 8 Phase II ANICS sites. 	<ul style="list-style-type: none"> Purchase and engineer 2 Phase II ANICS sites. 	<ul style="list-style-type: none"> Install 1 new Phase II ANICS site.

Program Plan FY2002 Performance Output Goals	Program Plan FY2003 Performance Output Goals	Key Events FY2004-2007 Performance Output Goals
<ul style="list-style-type: none"> • Install 8 new Phase II ANICS sites. • Bring online 9 Phase II ANICS sites. • Improve communications at 9 sites. • Reduce outages from almost 15 hours per month to ¾ of an hour. • Increase telecommunications availability from 98% to 99.9% for each new site. • Save approximately \$17,000 per year for each site brought on line. 	<ul style="list-style-type: none"> • Install 8 new Phase II ANICS sites. • Bring online 8 Phase II ANICS sites. • Improve communications at 8 sites. • Reduce outages from almost 15 hours per month to ¾ of an hour. • Increase telecommunications availability from 98% to 99.9% for each new site. • Save approximately \$17,000 per year for each site brought on line. 	<ul style="list-style-type: none"> • Bring online 1 Phase II ANICS site. • Improve communications at 1 site. • Reduce outages from almost 15 hours per month to ¾ of an hour. • Increase telecommunications availability from 98% to 99.9% for each new site. • Save approximately \$17,000 per year for each site brought on line. • Correct any installation discrepancies. • Correct Joint Acceptance Inspection (JAI) discrepancies. • Cutover of circuits to operational sites.

Category 4: 4C11; Electrical Power Systems – Sustain/Support;

Primary Goal: 2.1

Secondary Goal(s): n/a

Program Name and Outcome Goal	FY2001 Program Accomplishments/Status Performance Output Goals
Power Systems Sustained Support. Improve system efficiency by providing reliable quality power for the NAS. These power system sustainment activities will provide a more reliable standby source of quality power to support the continuous delivery of critical and essential air traffic control services within the NAS.	<ul style="list-style-type: none"> • Improved power in 5 ATCTs and TRACON facilities in advance of STARS. • Improved power in 5 ARTCCs. • Improved power in 7 other facilities.

Program Plan FY2002 Performance Output Goals	Program Plan FY2003 Performance Output Goals	Key Events FY2004-2007 Performance Output Goals
<ul style="list-style-type: none"> • Install UPS at 13 of the 176 TRACONS. • Replace ARTCC critical essential power system batteries at 12 of the 21 ARTCCs. • Improve ARTCC critical essential power system at 5 of the 21 ARTCCs. • Improve FAA power cable at 30 of the 77 high activity airports. • Replace 66 engine generators out of the 2,250 engine generator inventory. 	<ul style="list-style-type: none"> • Install UPS at 12 of the 176 TRACONS. • Replace ARTCC critical essential power system batteries at 9 of the 21 ARTCCs. • Improve ARTCC critical essential power system at 5 of the 21 ARTCCs. • Improve FAA power cable at 30 of the 77 high activity airports. • Replace 60 engine generators out of the 2,250 engine generator inventory. 	<ul style="list-style-type: none"> • Complete training facility at Oklahoma City, OK (FY 2004 or FY 2005). • Improve power at 100 additional facilities.

Category 4: 4C12; National Airspace System Recovery Communications;

Primary Goal: 2.1

Secondary Goal(s): n/a

Program Name and Outcome Goal	FY2001 Program Accomplishments/Status Performance Output Goals
National Airspace System (NAS) Recovery Communications (RCOM) Program. Provide system efficiency to the NAS by ensuring that during emergencies, the command and control communications (C3) will be able to provide time critical public safety and NAS information between the Administrator, the Administrator's staff, key regional managers, the DOT, and other national level executive personnel.	<ul style="list-style-type: none"> Completed 39 of 39 RCOM high frequency single side band (HFSSB) upgrades. Procured 154 of 408 secure telephone equipment (STE) units. Initiated RFI for the VHF/frequency modulated (FM) programs. Completed C3 HF Radio Sole Source Proof of Concept Test. Established Defense Messaging System (DMS) System Architecture.

Program Plan FY2002 Performance Output Goals	Program Plan FY2003 Performance Output Goals	Key Events FY2004-2007 Performance Output Goals
<ul style="list-style-type: none"> Deliver DMS equipment to 39 out of 39 sites. Deliver 154 of 264 STEs. Establish VHF operational test network. Award VHF/FM contract. Upgrade and enhance Satellite Telephone Network phones at 39 of 39 sites. Upgrade and enhance automated notification system (ANS) equipment at 15 of 15 sites. Deliver 2 out of 2 secure conferencing systems. Install C3 high frequency operational test networks in 4 out of 4 networks. 	<ul style="list-style-type: none"> Deliver 66 out of the remaining 112 STEs. Deliver 39 VHF/FM handhelds out of 3036. Deliver 109 VHF/FM repeaters out of 600. Deliver 109 VHF/FM telephone interconnect units out of 600. Deliver 84 out of 200 VHF/FM base stations. Deploy 1 out of 22 ARTCC C3 high frequency systems. Enhance and upgrade Communications Support Team (CST) equipment. 	<ul style="list-style-type: none"> Complete the deployment of the VHF/FM network. Complete the procurement of C3 high frequency systems. Implement P3I.

Category 4: 4C13; Aeronautical Center Infrastructure Modernization;

Primary Goal: 2.1/2.1.5

Secondary Goal(s): 6.1/6.1.2

Program Name and Outcome Goal	FY2001 Program Accomplishments/Status Performance Output Goals
Aeronautical Center Infrastructure Modernization. Improve operational efficiency and effectiveness by providing up-to-date facilities and supporting infrastructure that meet the needs of FAA mission support organizations located at the Aeronautical Center.	<ul style="list-style-type: none"> Awarded contract for the 1st phase of the structural upgrade for the Logistics Support Facility (LSF). Began construction of the 1st phase. Completed design work for the next construction phase. Purchased and installed network equipment to expand the telecommunications system bandwidth capability. Upgraded the FAAAC's telephone switching system through the NORTEL switch software upgrade.

Program Plan FY2002 Performance Output Goals	Program Plan FY2003 Performance Output Goals	Key Events FY2004-2007 Performance Output Goals
<ul style="list-style-type: none"> • Complete construction of the 1st construction phase of the LSF structural upgrade and begin 2nd phase. • Award contract for the 2nd phase of the LSF structural upgrade. • Install telecommunications equipment, including telephone system cabling, network equipment, and NOTEL telephone switch upgrade. • Design and award 1st phase of Civil Aeromedical Institute (CAMI) Building renovation. 	<ul style="list-style-type: none"> • Complete 2nd phase of the LSF structural upgrade, complete design for 3rd phase, and begin 3rd phase construction. • Install telecommunications equipment, including telephone system cabling, network equipment, and NOTEL telephone switch upgrade. • Design and award 2nd construction phase of CAMI renovation. 	<ul style="list-style-type: none"> • Complete design and construction of remaining phases of the LSF structural upgrade. • Complete installation of telecommunications systems expansion and upgrade. Upgrade NOTEL switch. • Begin next generation telecommunications system modernization. • Complete design and construction of remaining phases of the CAMI Building renovation. • Design and construct Systems Training Building renovation. • Construct storm sewer expansion. • Design and construct the 1st phase of the Multi-Purpose Building.

Category 4: 4C14; Frequency and Spectrum Engineering;

- **National Airspace System Spectrum Engineering Management – National Airspace System Spectrum Engineering Sustained Support**
- **National Airspace System Spectrum Engineering Management – Frequency Interference Support/Resolution**

Primary Goal: 2.1/2.1.1, 2.1.2, 2.1.4

Secondary Goal(s): 1.1/1.1.1, 1.1.2, 1.1.3, 1.1.4

Program Name and Outcome Goal	FY2001 Program Accomplishments/Status Performance Output Goals
Frequency and Spectrum Engineering Programs. Improve system efficiency in the NAS with careful and detailed frequency planning necessary to ensure that current and future aeronautical safety systems are provided adequate radio spectrum in which to operate. In addition, spectrum management support must be provided to both government and non-government offices involved in operation of current systems and to organizations planning new aeronautical systems.	<ul style="list-style-type: none"> • Installed GPS RFI/DF systems on 2 flight inspection aircraft. • Supported FAA LAAS spectrum requirements. • Supported FAA Capstone spectrum requirements. • Increased available VHF A/G communication channels for air traffic control to address spectrum congestion. • Provided engineering data to develop international standards for NEXCOM VHF digital link (VDL) – model 3 frequency engineering criteria.

Program Plan FY2002 Performance Output Goals	Program Plan FY2003 Performance Output Goals	Key Events FY2004-2007 Performance Output Goals
<ul style="list-style-type: none"> • Provide frequency engineering for ASDE-x. • Achieve consensus for a worldwide frequency allocation for LAAS. • Replace analog radios with next generation digital communication radios. • Complete studies and tests on the effects of ultra-wideband (UWB) devices on GPS*. 	<ul style="list-style-type: none"> • Support preparations for the WRC 2003. • Complete frequency and spectrum studies for ICAO to protect GNSS frequency bands. • Develop frequency assignment and airspace evaluation criteria for the ICAO approved ground-based augmentation system (GBAS). • Finalize NEXCOM transition plan. 	<ul style="list-style-type: none"> • Modernize and develop equipment for more efficient radio frequency engineering. • Improve RFI capabilities throughout the NAS. • Develop the next generation RFI van design. • Develop the next generation automated frequency management system. • Support preparations for WRC 2006.

Program Plan FY2002 Performance Output Goals	Program Plan FY2003 Performance Output Goals	Key Events FY2004-2007 Performance Output Goals
<ul style="list-style-type: none"> • Support ADS-B spectrum requirements. • Support required spectrum studies for the 2003 World Radio communication Conference (WRC). 	<ul style="list-style-type: none"> • Analyze radio spectrum technical and capacity issues associated with ADS-B. 	

* In FY2001, Congress mandated \$2.6 million to study the effects of UWB devices on aeronautical systems (including GPS). Funds were transferred to “ASR under project code 11270104, CIP # N120103.” Tests may include bench tests and flight tests, expanding on previous tests of aeronautical systems and systems that have not been tested to date. The tests may also include UWB signals that have not been previously used, and should provide additional information on aggregate effects of UWB devices. The results obtained will be used to provide the basis for rules for UWB devices.

Category 5: Improve the Efficiency of Mission Support

Category 5: 5A01/5A02; National Airspace System Improvement of System Support Laboratory /Technical Center Facilities;

- National Airspace System Improvement of System Support Laboratory
- Technical Center Facilities

Primary Goal: 2.1/2.1.5

Secondary Goal(s): n/a

Program Name and Outcome Goal	FY2001 Program Accomplishments/Status Performance Output Goals
William J. Hughes Technical Center (WJHTC) System Support Laboratory. Improve system efficiency in the NAS by providing the agency's laboratory infrastructure at the WJHTC for the development, testing, upgrades, and 2 nd level field support of CIP programs. Each CIP program supported by these laboratories contributes to one or more of the FAA and DOT Goals.	<ul style="list-style-type: none"> • Sustained and supported FAA WJHTC Laboratories and Test Facilities.

Program Plan FY2002 Performance Output Goals	Program Plan FY2003 Performance Output Goals	Key Events FY2004-2007 Performance Output Goals
<ul style="list-style-type: none"> • Sustain and support FAA WJHTC Laboratories and Test Facilities. 	<ul style="list-style-type: none"> • Sustain and support FAA WJHTC Laboratories and Test Facilities. 	<ul style="list-style-type: none"> • Sustain and support FAA WJHTC Laboratories and Test Facilities.

Category 5: 5A03; Technical Center Building and Plant Support;

Primary Goal: 2.1/2.1.5

Secondary Goal(s): n/a

Program Name and Outcome Goal	FY2001 Program Accomplishments/Status Performance Output Goals
William J. Hughes Technical Center (WJHTC) Infrastructure Sustainment. Improve system efficiency of the NAS by refurbishing and replacing aging, obsolete facilities, systems, and equipment. These activities will ensure the WJHTC's ability to sustain its physical structures in its efforts to develop and support a safe, secure, and efficient global aviation system.	<ul style="list-style-type: none"> • Expanded the WJHTC's energy management system. • Completed the Building 301 interior renovation design. • Completed Phase 1 of a base-wide central metering system.

Program Plan FY2002 Performance Output Goals	Program Plan FY2003 Performance Output Goals	Key Events FY2004-2007 Performance Output Goals
<ul style="list-style-type: none"> • Perform infrastructure upgrades at 5 R&D facilities at the WJHTC. Upgrades include the refurbishment or replacement of HVAC systems, electrical power panels, lighting systems, and exterior glazing, where necessary. • Complete the Building 301 interior renovation. • Complete the Building 303 emergency generator synchronization. 	<ul style="list-style-type: none"> • Replace the exterior glazing in Building 301. • Replace the Building 303 boiler stack. • Complete the Building 300 interior upgrade design. 	<ul style="list-style-type: none"> • Complete Phase I of the Building 300 mechanical equipment replacement program. • Renovate Building 275. • Replace electrical transformers at various WJHTC facilities. • Complete roadway improvements at WJHTC. • Expand Building 207. • Replace 1 refrigeration machine in Building 303.

Category 5: 5A05; Department of Defense/Federal Aviation Administration Facilities Transfer;

Primary Goal: 6.1

Secondary Goal(s): n/a

Program Name and Outcome Goal	FY2001 Program Accomplishments/Status Performance Output Goals
Department of Defense (DoD)/Federal Aviation Administration (FAA) Air Traffic Control Facility Transfer/Modernization – Original Program. Achieve the optimum level of customer satisfaction that should result from acquiring new systems (telecommunications, microwave, power supply, short-term emergency power, security, etc.) needed for providing essential air traffic data to FAA air traffic controllers covering transferred DoD airspace now controlled by the FAA.	<ul style="list-style-type: none"> Modernized facilities at DoD transferred locations: McClellan/Camp Kohler/Sacramento TRACON; El Toro; Castle; Skaggs Island; Barbers Point, HI; Kalaheo Airport, HI; K.I. Sawyer; Vandenburg/Pt Mugu/Edwards, CA; and Pt Lay, AK.

Program Plan FY2002 Performance Output Goals	Program Plan FY2003 Performance Output Goals	Key Events FY2004-2007 Performance Output Goals
<ul style="list-style-type: none"> Identify new acquisitions that should result in optimum customer satisfaction. Complete Vandenburg/Pt Mugu/Edwards, CA (telecommunications, microwave, power supply, short-term emergency power, security, etc.). Complete the communications project at Pt. Lay, AK. Remote air traffic data from Point Mugu, CA, to either the Santa Barbara TRACON/Southern California TRACON/Los Angeles Center. Install radar equipment at 29 Palms and El Centro. Support the air traffic operations of Ft. Sill, OK, Army Radar Approach Control (ARAC), pending Congressional approval. 	<ul style="list-style-type: none"> Acquire new systems that are the most effective in terms of results. Accomplish projects identified by the DoD and approved by Congress for FY 2003. 	<ul style="list-style-type: none"> Acquire new systems that are the most effective in optimizing total customer satisfaction. Accomplish projects identified by the DoD and approved by Congress for FY 2004 through FY 2007.

Category 5: 5A09; Federal Aviation Administration Buildings and Equipment;

Primary Goal: 6.1/.6.1.1

Secondary Goal(s): n/a

Program Name and Outcome Goal	FY2001 Program Accomplishments/Status Performance Output Goals
Federal Aviation Administration (FAA) Buildings and Equipment Sustain Support – Modernize/Improve. Achieve the optimum level of customer satisfaction that should result from sustainment actions, expansions, and modifications, which also includes improving NAS efficiency by providing facility replacements and upgrades to reduce maintenance requirements associated with an aging infrastructure.	<ul style="list-style-type: none"> Repaired/replaced cable, access roads, grounds, and roofs at the most critical VORs. Repaired/replaced electrical systems, flooring, and plant equipment at the most critical ASRs. Established/improved lightning, grounding, bonding, and shielding at limited remote transmitter/receiver locations.

Program Plan FY2002 Performance Output Goals	Program Plan FY2003 Performance Output Goals	Key Events FY2004-2007 Performance Output Goals
<ul style="list-style-type: none"> Identify the future year sustainment actions, expansions, and modifications that should result in optimum customer satisfaction. Replace/upgrade outdated radio communication link equipment HVAC systems for ARSRs and ASRs. Replace/relocate power and control cabling at various navigation and landing system locations. Repair/replace the most dilapidated shelters for VOR equipment, radar, radar microwave links, ILS, engine generators, and communications outlets. Repair/improve facility access roads. Make facility modifications to improve building accessibility and provide safety upgrades. 	<ul style="list-style-type: none"> Accomplish the modifications, sustainment actions, and expansions that are most effective in terms of results. Replace/upgrade outdated radio communication link equipment and HVAC systems for ARSRs and ASRs. Replace/relocate power and control cabling at various navigation and landing system locations. Repair/replace the most dilapidated shelters for VOR equipment, radar, radar microwave links, ILS, engine generators, and communications outlets. Repair/improve facility access roads. Make facility modifications to improve building accessibility and provide safety upgrades for unstaffed facilities. 	<ul style="list-style-type: none"> Accomplish the modifications, sustainment actions, and expansions that are most effective in terms of results. Continue repair and upgrades for the most in-need/critical facilities. Continue repair and upgrade of buildings for compliance with laws and directives with the objective to reduce the decline in facility infrastructure condition. Continue power and HVAC repairs/replacements to facilitate the installation of new equipment, as appropriate.

Category 5: 5A10; Air Navigational Aids and Air Traffic Control Facilities (Local Projects);

Primary Goal: 1.1/1.1.3

Secondary Goal(s): n/a

Program Name and Outcome Goal	FY2001 Program Accomplishments/Status Performance Output Goals
Continued General Support – Air Navigation Aids Facilities – Local Projects. Address F&E emergencies that arise during the course of daily operations and that require immediate attention to ensure the continued safe operation of air navigation facilities and air traffic control equipment. Capabilities include communications, surveillance, weather information, and air traffic control facilities.	<ul style="list-style-type: none"> Performed recurring emergency installations of navigational aid and air traffic control equipment.

Program Plan FY2002 Performance Output Goals	Program Plan FY2003 Performance Output Goals	Key Events FY2004-2007 Performance Output Goals
<ul style="list-style-type: none"> Perform recurring emergency installations of navigational aid and air traffic control equipment. 	<ul style="list-style-type: none"> Perform recurring emergency installations of navigational aid and air traffic control equipment. 	<ul style="list-style-type: none"> Perform recurring emergency installations of navigational aid and air traffic control equipment.

Category 5: 5A11; Computer-Aided Engineering Graphics Modernization;

Primary Goal: 2.1

Secondary Goal(s): n/a

Program Name and Outcome Goal	FY2001 Program Accomplishments/Status Performance Output Goals
<p>Computer-Aided Engineering Graphics (CAEG) Replacement. Improve system efficiency at all regions and centers through the use of enhanced computer-aided design and drafting (CADD) systems coupled with a web-based document management system to improve the FAA's ability to implement capital improvements. The enhanced system will meet increasing user access needs by expanding the system and by providing a flexible system interface to a suite of state-of-the-art graphical modeling and analysis tools and to an underlying secure and reliable engineering library to augment the decision making process.</p>	<ul style="list-style-type: none"> • Increased CAEG system access by delivering 61 foundation and 35 specialized CADD software based on the Windows operating system. • Delivered 6 modern high-performance CAEG servers to replace slow and inefficient servers. • Completed the electronic document managing system (eDMS) pilot effort at 4 sites. • Delivered 17 plotters to replace high maintenance out-of-production plotters. • Delivered 3 modern scanners for imaging applications. • Completed eDMS drawing database and searchable web page application for National Standard Drawings and populated it with 350 drawing file images and intelligence out of 17,000 drawings. • Deployed radio coverage analysis system (RCAS) v10.2.1. • Completed development of training material for the airport system v1.0 (Part 77 Analysis tool). • Completed customization of MicroStation CADD engine to reflect FAA-Standard-002e (the FAA's drawing standard) and commenced beta testing. • Instituted a web-base problem reporting system and national help desk for specialized applications. • Provided timely application of all Windows security patches and virus protections, preventing unauthorized system penetration and preventing system infestation of Code Red virus. Applied 30 Windows patches and 20 Internet server patches to each CAEG national server. • Achieved Bargaining Unit Acceptance of FAA-Standard-002e.

Program Plan FY2002 Performance Output Goals	Program Plan FY2003 Performance Output Goals	Key Events FY2004-2007 Performance Output Goals
<ul style="list-style-type: none"> • Field the airport system v1.0 with requisite training material and curriculum. • Upgrade airport system v1.0 to v2.0 to include connectivity to 7460-1 Aeronautical Case Studies; upgrade to Threshold Siting Analysis. • Migrate RCAS v10.2.1 to the Windows NT Platform and serve via CITRIX solution, increasing product availability. • Upgrade and increase CITRIX server licenses by 30% for additional access points to the RCAS and airport system applications. • Upgrade CAEG database engine to v Oracle9i to increase system access time, reliability, and maintainability. • Complete the AutoCAD CADD engine FAA-Standard-002e customization and begin beta testing. • Provide rapid application of all Windows security patches to prevent breach of CAEG system. • Sustain national CAEG system maintenance vehicle to ensure optimum system availability. • Install eDMS and make fully operational at 5 implementation centers. • Replace 3 CAEG outdated (WorkStation Solution) backup systems. • Populate the eDMS with 3000 engineering drawing file images and intelligence of remaining 16,650 drawings. • Test new CADD licensing concept (Bentley Portfolio), offering enhanced management and flexibility in terms of breadth of application. 	<ul style="list-style-type: none"> • Install and fully implement the eDMS at the remaining 4 implementation centers. • Develop an eDMS (rev2) software upgrade to capture the standard drawing management business process quality control revisions and document management improvements. • Implement next generation of Microsoft operating system and CAEG servers. • Finish implementation of the CAEG backup and recovery plan. • Provide rapid application of all Windows security patches to prevent breach of CAEG system. • Sustain national CAEG system maintenance vehicle to ensure optimum system availability. • Populate the eDMS with 3000 engineering drawing file images and intelligence of remaining 13,650 drawings. 	<ul style="list-style-type: none"> • Deploy eDMS software upgrades to capture commercial updates of the MicroStation Windows Operating System Office Suite and the MicroStation and AutoCAD CADD software as needed. • Start analysis of next generation of CAEG hardware and software systems. • Provide rapid application of all Windows security patches to prevent breach of CAEG system. • Sustain national CAEG system maintenance vehicle to ensure optimum system availability. • Investigate Virtual Public Network solution for the CAEG system and develop study. • Populate the eDMS with remaining 13,350 engineering drawing file images and intelligence.

Category 5: 5A12; Information Technology Integration;

Primary Goal: 2.1/2.1.5

Secondary Goal(s): n/a

Program Name and Outcome Goal	FY2001 Program Accomplishments/Status Performance Output Goals
Federal Aviation Administration (FAA) Corporate System Architecture – Information Technology (IT) Integration. Improve operational efficiency and effectiveness by reducing the cost of delivering IT services without reducing service quality, and by optimizing IT decisions and resources across the agency.	<ul style="list-style-type: none"> • Implemented an agency data management program. • Continued to improve selected FAA programs to integrate capability maturity model (iCMM) Level 3 and expanded process improvement effort to include additional programs to reach maturity level 2. • Continued to integrate improved processes for certifying software aspects of airborne and ground systems to ensure safety. • Developed and implemented an FAA IT Investment Analysis and Prioritization Plan to ensure the efficient investment of IT resources.

Program Plan FY2002 Performance Output Goals	Program Plan FY2003 Performance Output Goals	Key Events FY2004-2007 Performance Output Goals
<ul style="list-style-type: none"> • Continue to integrate improved processes for certifying software aspects of airborne and ground systems to ensure safety. • Broaden the process improvement effort to include more acquisition programs and accelerate the benefits realized in programs that have already been applying process improvement. • Enhance the FAA metadata repository from a limited IOC to a COTS solution with expanded capability. • Develop the Agency's Business Planning And Portfolio Management initiatives. 	<ul style="list-style-type: none"> • Continue to integrate improved processes for certifying software aspects of airborne and ground systems to ensure safety. • Continue to broaden the process improvement effort to include more acquisition programs and accelerate the benefits realized in programs that have already been applying process improvement. • Implement the initiatives of the Agency's Data Management Program. • Implement the initiatives of the Agency's Business Planning and Portfolio Management Programs. 	<ul style="list-style-type: none"> • Continue to integrate improved processes for certifying software aspects of airborne and ground systems to ensure safety. • Continue to broaden the process improvement effort to include more acquisition programs and accelerate the benefits realized in programs that have already been applying process improvement. • Continue to implement the initiatives of the Agency's Data Management Program. • Continue to implement the initiatives of the Agency's Business Planning and Portfolio Management Programs.

Category 5: 5A14; Logistics Support Systems and Facilities;

Primary Goal: 2.1/2.1.5

Secondary Goal(s): n/a

Program Name and Outcome Goal	FY2001 Program Accomplishments/Status Performance Output Goals
Logistics Support Systems and Facilities – Asset and Supply Chain Management (ASCM). Improve operational efficiency and effectiveness throughout the agency by exercising effective control of assets and providing full life cycle management.	<ul style="list-style-type: none"> • Evaluated and implemented short-term solutions. • Purchased initial hardware and software. • Sustained legacy systems.

Program Plan FY2002 Performance Output Goals	Program Plan FY2003 Performance Output Goals	Key Events FY2004-2007 Performance Output Goals
<ul style="list-style-type: none"> • Award systems integration contract. • Begin business process analysis and re-engineering. • Initiate software improvements to legacy software, including inventory and shipping and receiving. • Continue barcoding of new and legacy NAS systems. 	<ul style="list-style-type: none"> • Complete business process analysis and reengineering. • Implement baseline solution, including hardware and software acquisition. • Continue barcoding of new and legacy NAS systems. • Update cataloging and storage management software. 	<ul style="list-style-type: none"> • Complete customization of ASCM solution. • Fully deploy national system. • Train personnel. • Complete update of barcode inventory tracking, quality assurance, and help desk software. • Operate and maintain ASCM solution.

Category 5: 5A16; Facility Security Risk Management;

Primary Goal: 5.1 Secondary Goal(s): n/a

Program Name and Outcome Goal	FY2001 Program Accomplishments/Status Performance Output Goals
Facility Security Risk Management (FSRM). Improve and/or enhance physical security at all FAA staffed facilities in accordance with FAA Order 1600.69a. This order delineates requirements for physical security protective measures, and establishes standards, objectives, procedures, and techniques for the protection of FAA employees, agency property, facilities, contractors, and the public. This order clarifies and updates facility security procedures for all FAA facilities, and establishes standards for facility security management, control, and safeguarding of assets and facilities.	<ul style="list-style-type: none"> • Awarded contract for X-ray screening equipment • Accredited 150 facilities. • Developed standard drawings for guardhouses. • Completed standard drawings for 7 types of facilities. • Completed Engineering Design Reference Manual. • Developed and distributed the Physical Security Awareness video. • Developed and distributed standard statement of work (SOW) for guards.

Program Plan FY2002 Performance Output Goals	Program Plan FY2003 Performance Output Goals	Key Events FY2004-2007 Performance Output Goals
<ul style="list-style-type: none"> • Upgrade and accredit 200 facilities. • Develop SOW for contract maintenance. • Start engineering design at 10 ARTCCs. • Complete impact and implementation with bargaining units. 	<ul style="list-style-type: none"> • Upgrade and accredit 17 facilities. 	<ul style="list-style-type: none"> • Continue to upgrade and accredit 625 Level I, II, III, and IV facilities.

Category 1: 5A17; Information Security;

Primary Goal: 5.1 Secondary Goal(s): n/a

Program Name and Outcome Goal	FY2001 Program Accomplishments/Status Performance Output Goals
National Airspace System (NAS) Information Security – Information Systems Security. Safeguard information assets.	<ul style="list-style-type: none"> • Certified and authorized mission critical systems on the Presidential Decision Directive (PDD) 63 list. • Expanded the computer security incident response capability (CSIRC).

	<ul style="list-style-type: none"> • Implemented cost-effective countermeasures based on risk assessment reports and intrusion detection analysis of CSIRC data. • Conducted independent penetration testing.
--	---

Program Plan FY2002 Performance Output Goals	Program Plan FY2003 Performance Output Goals	Key Events FY2004-2007 Performance Output Goals
<ul style="list-style-type: none"> • Certify and authorize mission critical systems on the PDD-63 list. • Expand the CSIRC. • Implement cost-effective countermeasures based on risk assessment reports and intrusion detection analysis of CSIRC data. • Conduct independent penetration testing. 	<ul style="list-style-type: none"> • Certify and authorize the remaining mission critical systems on the PDD-63 list. • Expand the CSIRC. • Implement cost-effective countermeasures based on risk assessment reports and intrusion detection analysis of CSIRC data. • Conduct independent penetration testing. 	<ul style="list-style-type: none"> • Certify and authorize agency mission support systems. • Implement cost-effective countermeasures based on risk assessment reports and intrusion detection analysis of CSIRC data. • Conduct independent penetration testing.

Category 5: 5A18; Distance Learning;

Primary Goal: 2.1/2.1.1, 2.1.2, 2.1.4, 2.1.5

Secondary Goal(s): 1.1/1.1.1, 1.1.2, 1.1.3, 1.1.4

Program Name and Outcome Goal	FY2001 Program Accomplishments/Status Performance Output Goals
<p>Distance Learning. Maintain/improve system efficiency by making more efficient and effective training delivery systems available to all NAS programs and at all FAA learning centers. Significantly reduce training time through increased use of proven self-paced computer-based instruction (CBI) multimedia instruction, thus reducing costs and increasing training opportunities. Significantly reduce training costs through increased use of CBI at the job site, thus reducing travel and per diem costs and travel time. Significantly increase training delivered through improved availability by publishing more CBI courses. In addition to improving system efficiency, this project will clearly protect system safety by making more training available, as well as more immediate and individualized training and more effective training for controllers and all FAA technical personnel.</p>	<ul style="list-style-type: none"> • Identified system requirements and specifications for FY 2002-2004. • Converted all analog video courseware to digital versatile discs (DVD). • Completed CBI platform digital video upgrades at all remaining sites. • Completed upgrade of central system servers to support field sites.

Program Plan FY2002 Performance Output Goals	Program Plan FY2003 Performance Output Goals	Key Events FY2004-2007 Performance Output Goals
<ul style="list-style-type: none"> • Upgrade all Airway Facilities Learning Centers to CBI enhanced DVD platforms. • Deliver 10 new courses to all sites. • Deliver courses to support current NAS system rollouts and commissionings. 	<ul style="list-style-type: none"> • Upgrade ATRCC and TRACON Learning Centers to CBI enhanced DVD platforms. • Upgrade all Flight Standards Learning Centers to CBI enhanced DVD platforms. • Deliver 50 new courses to all sites. • Deliver courses to support current NAS system rollouts and commissionings. 	<ul style="list-style-type: none"> • Upgrade all remaining learning centers to CBI enhanced DVD platforms. • Maintain all learning centers' upgrades to current platforms required to support delivery of CBI training and simulations for all other NAS components in the CIP. • Deliver 200 new courses to all sites. • Deliver courses to support current NAS system rollouts and commissionings (refer to each

Program Plan FY2002 Performance Output Goals	Program Plan FY2003 Performance Output Goals	Key Events FY2004-2007 Performance Output Goals
		specific NAS program for dates).

Category 5: 5A19; National Airspace System Training Facilities;

Primary Goal: 2.1/2.1.5

Secondary Goal(s): 1.1/1.1.3, 1.1.4

Program Name and Outcome Goal	FY2001 Program Accomplishments/Status Performance Output Goals
National Airspace System (NAS) Training – Modernization. Maintain operational efficiency and effectiveness in air traffic control training by replacing the FAA’s outdated air traffic control tower cab training simulator with one that is more versatile and up-to-date with those currently used by aviation organizations throughout the world. Also, improve operational efficiency and effectiveness in air traffic control, airway facilities, airports, and regulatory standards training by (1) upgrading classrooms to provide a more effective, efficient presentation and a reduction in course delivery costs; (2) replacing outdated laboratory equipment with actual current field test equipment; and (3) improving communications between academy and student and administrative customers, resulting in significant operational time savings.	<ul style="list-style-type: none"> • Identified tower cab simulator requirements. • IOC of Enhanced Debrief Stations. • Initial system implementation for Airway Facilities Laboratories and Simulation. • Initial implementation of hardware for FAA Information Superhighway for Training (FIST). • Program completion status: 47.5% completed.

Program Plan FY2002 Performance Output Goals	Program Plan FY2003 Performance Output Goals	Key Events FY2004-2007 Performance Output Goals
<ul style="list-style-type: none"> • FOC of enhanced debrief stations. • IOC of tower cab bay 1 of 2. • IOC of classroom refurbishment, including conversion of course material to suitable format for digital bright radar indicator tower equipment (DBRITE), data processing subsystem (DPS), and Sony Display. • Install and test FIST software. 	<ul style="list-style-type: none"> • FOC of tower cab bay 1 of 2. • IOC of tower cab bay 2 of 2. • Continue implementation of classroom refurbishment with necessary course conversion for ILS, VORTAC, and DME. • Replace by-pass exam functions and hardware added to FIST. 	<ul style="list-style-type: none"> • FOC of tower cab bay 2 of 2. • FOC of classroom refurbishment and related course conversion for ATOS, SPAS, OPSS, ACRA, designee information network (DIN), Regulatory and Guidance Library (RGL), en route radar, OASIS en route flight advisory, DSR, STARS, air traffic control system, quality assurance, ARTS IIE/IIIE, airports, motor vehicle management, and air traffic training enhancement (ATTE) cadre courses. • FOC of FIST, increasing service capabilities. • Technology refresh for tower operating training system (TOTS)/explosive detection system (EDS). • Complete technology refresh for classrooms. • Complete technology refresh for labs and simulation. • Complete technology refresh for FIST.

Category 5: 5A21; Program Support Leases;

Primary Goal: 2.1/2.1.5

Secondary Goal(s): n/a

Program Name and Outcome Goal	FY2001 Program Accomplishments/Status Performance Output Goals
Continued General Support – Program Support Leases. Assure efficient application of FAA and aerospace resources by providing payment for existing leases for land and space that directly support NAS operational facilities and critical components of an aerospace transportation system that meet the needs of users.	<ul style="list-style-type: none"> Funded over 3,600 existing leases for land and space that directly support NAS operational facilities.

Program Plan FY2002 Performance Output Goals	Program Plan FY2003 Performance Output Goals	Key Events FY2004-2007 Performance Output Goals
<ul style="list-style-type: none"> Fund over 3,600 existing leases for land and space that directly support NAS operational facilities. 	<ul style="list-style-type: none"> Fund over 3,600 existing leases for land and space that directly support NAS operational facilities. 	<ul style="list-style-type: none"> Fund over 3,600 existing leases for land and space that directly support NAS operational facilities.

Category 5: 5A22; Logistics Support Services;

Primary Goal: 2.1

Secondary Goal(s): n/a

Program Name and Outcome Goal	FY2001 Program Accomplishments/Status Performance Output Goals
National Airspace System (NAS) Regional/Center Logistics Support Services Program. Improve system efficiency by providing real estate, acquisition, and material management functions at regions and centers, as required, to field modernized NAS equipment, systems, and facilities within the timeframes established by the programs included in the CIP. Compile and maintain adequate documentation, suitable for independent audit, to establish the capital cost of facilities throughout the FAA.	<ul style="list-style-type: none"> Provided 126 staff years contract support to perform real property acquisition, material management, and contracting activities.

Program Plan FY2002 Performance Output Goals	Program Plan FY2003 Performance Output Goals	Key Events FY2004-2007 Performance Output Goals
<ul style="list-style-type: none"> Provide 126 staff years of contract support to perform real property acquisition, material management, and contracting activities. 	<ul style="list-style-type: none"> Provide 126 staff years of contract support to perform real property acquisition, material management, and contracting activities. 	<ul style="list-style-type: none"> Provide 126 staff years of contract support to perform real property acquisition, material management, and contracting activities.

Category 5: 5A23; Mike Monroney Aeronautical Center – Leases;

Primary Goal: 2.1/2.1.5

Secondary Goal(s): 6.1/6.1.2

Program Name and Outcome Goal	FY2001 Program Accomplishments/Status Performance Output Goals
Aeronautical Center Lease. Improve operational efficiency and effectiveness	<ul style="list-style-type: none"> Met all lease commitments on time, which provided land, facilities, and

by providing up-to-date facilities and supporting infrastructure that meets the needs of FAA mission support organizations located at the Aeronautical Center.	infrastructure to accomplish the mission of organizations at the Mike Monroney Aeronautical Center (MMAC). <ul style="list-style-type: none"> Completed last phase of the fire protection system upgrade in the Registry Building.
--	--

Program Plan FY2002 Performance Output Goals	Program Plan FY2003 Performance Output Goals	Key Events FY2004-2007 Performance Output Goals
<ul style="list-style-type: none"> Meet all lease commitments on time, which provides land, facilities, and infrastructure to accomplish the mission of organizations at the MMAC. 	<ul style="list-style-type: none"> Meet all lease commitments on time, which provides land, facilities, and infrastructure to accomplish the mission of organizations at the MMAC. 	<ul style="list-style-type: none"> Meet all lease commitments on time, which provides land, facilities, and infrastructure to accomplish the mission of organizations at the MMAC. Retire senior lien debt on 1st phase of MMAC Renovation Program in FY 2005, which will reduce the lease requirement by approximately \$2.0 million.

Category 5: 5A25; Transition Engineering Support;

Primary Goal: 2.1 Secondary Goal(s): n/a

Program Name and Outcome Goal	FY2001 Program Accomplishments/Status Performance Output Goals
National Airspace System (NAS) Implementation Support Contract (NISC). Improve system efficiency by providing professional and technical support services to the FAA in over 13 functional areas, which include implementation and integration planning, engineering, automation, air traffic systems requirements, project management, environment, and other technical specialties. The primary function of the NISC is to assist the FAA in ensuring that over 80 CIP projects are completed on schedule and within budget and meet specifications and quality standards.	<ul style="list-style-type: none"> Provided vital support to: <ul style="list-style-type: none"> En Route Automation and STARS ATCT/TRACON (including TRACON consolidation) Terminal Evaluation, Free Flight Program, & Capstone Project Information Security and NIMS Configuration Management Environmental and OSHA Infrastructure Support Projected life cycle cost estimates.

Program Plan FY2002 Performance Output Goals	Program Plan FY2003 Performance Output Goals	Key Events FY2004-2007 Performance Output Goals
<ul style="list-style-type: none"> Continue contractor support services that directly impact the completion of over 80 CIP projects and other projects and activities. 	<ul style="list-style-type: none"> Continue contractor support services that directly impact the completion of over 80 CIP projects and other projects and activities. 	<ul style="list-style-type: none"> Continue contractor support services that directly impact the completion of over 80 CIP projects and other projects and activities.

Category 5: 5A26; Federal Aviation Administration Corporate System Architecture'

Primary Goal: 1.1 Secondary Goal(s): n/a

Program Name and Outcome Goal	FY2001 Program Accomplishments/Status Performance Output Goals
Federal Aviation Administration (FAA) Corporate Systems Architecture – Information Technology Infrastructure. Improve system efficiency for the following IT programs Enterprise Network, Metropolitan Area Network, Internet/Intranet, and the web. The programs will enhance the agency's systems for its internal customers.	<ul style="list-style-type: none"> Continued to implement the latest anti-virus software. Continued to improve the extranet firewall. Continued to broaden.

Program Plan FY2002 Performance Output Goals	Program Plan FY2003 Performance Output Goals	Key Events FY2004-2007 Performance Output Goals
<ul style="list-style-type: none"> Continue anti-virus software updates. Continue bandwidth increase. Continue multi-media improvements. Continue Internet/Intranet improvements. 	<ul style="list-style-type: none"> Continue anti-virus software updates. Continue bandwidth increase. Continue multi-media improvements. Continue Internet /Intranet improvements. 	<ul style="list-style-type: none"> Continue anti-virus software updates. Continue bandwidth increase. Continue multi-media improvements. Continue Internet/Intranet improvements.

Category 5: 5A27; Technical Support Services Contract;

Primary Goal: 2.1 Secondary Goal(s): n/a

Program Name and Outcome Goal	FY2001 Program Accomplishments/Status Performance Output Goals
Technical Support Services Contract (TSSC). Serve as an enabling vehicle that expands and contracts with work requirements and available F&E funds. As large F&E programs move from the acceptance to the field delivery phases, TSSC resources are needed to perform site surveys and preparation and equipment installation for them.	<ul style="list-style-type: none"> Completed RFO and screening information request (SIR) for follow-on contract (T-3). Completed evaluation of bids (November 2001). Awarded T-3 contract (estimated November 2001). Supported approximate breakout of TSSC work hours: <ul style="list-style-type: none"> En Route: 265,031 Terminal: 739,880 Flight Service: 99,387

Program Plan FY2002 Performance Output Goals	Program Plan FY2003 Performance Output Goals	Key Events FY2004-2007 Performance Output Goals
<ul style="list-style-type: none"> Award follow-on contract (T-3), which will require a T-2 to T-3 transition period and a period supporting 2 simultaneous TSSC vendors in order to avoid a gap in services. 	<ul style="list-style-type: none"> Continue T-3 contract. 	<ul style="list-style-type: none"> Continue T-3 contract.

Category 5: 5A28; Resource Tracking Program;

Primary Goal: 6.1

Secondary Goal(s): n/a

Program Name and Outcome Goal	FY2001 Program Accomplishments/Status Performance Output Goals
Continued General Support – Resource Tracking Program (RTP). Improve organizational excellence by providing a diverse set of tools to support F&E project management.	<ul style="list-style-type: none"> • Upgraded database to Oracle 8i. • Centralized the database. • Reviewed and received training on the proposed COTS project management tool.

Program Plan FY2002 Performance Output Goals	Program Plan FY2003 Performance Output Goals	Key Events FY2004-2007 Performance Output Goals
<ul style="list-style-type: none"> • Purchase a COTS project management tool. • Integrate COTS software into RTP. • Provide training on the COTS application. • Provide Oracle software development. • Begin communications upgrade. • Continue hardware and software maintenance and upgrades. 	<ul style="list-style-type: none"> • Provide a mirrored server for backup and archive. • Complete communications network upgrade. • Provide Oracle software development. • Continue hardware and software maintenance and upgrades. 	<ul style="list-style-type: none"> • Enhance/modify RTP to meet changing FAA needs.

Category 5: 5B01; National Airspace System Facilities Occupational Safety and Health Administration and Environmental Standards Compliance;

Primary Goal: 4.1

Secondary Goal(s): n/a

Program Name and Outcome Goal	FY2001 Program Accomplishments/Status Performance Output Goals
National Airspace System (NAS) Facilities Occupational Safety and Health Administration (OSHA)/Environmental Standards Compliance. Implement programs for OSHA and Environmental Compliance, Fire Life Safety (FLS), and Energy Conservation, insure a safe and healthful workplace for FAA employees, and protect the environment through sound environmental and energy efficient practices.	<ul style="list-style-type: none"> • Developed lockout/tagout program implementation guidance, coordinated the guidance with the field, and initiated union coordination. • Developed and published training standards for all required OSHA and environmental training courses in the FAA. • Provided training for 100 technicians responsible for FLS systems in ATCTs and initiated upgrade projects at 28 ATCTs.

Program Plan FY2002 Performance Output Goals	Program Plan FY2003 Performance Output Goals	Key Events FY2004-2007 Performance Output Goals
<ul style="list-style-type: none"> • Implement a fall protection program to protect employees working at heights. • Support the acquisition management organizations by providing occupational safety and health (OSH) and environmental technical assistance throughout the acquisition process. • Perform Environmental Compliance Plan (ECP) 	<ul style="list-style-type: none"> • Implement an electrical safety program to protect employees working on electrical systems. • Support the acquisition management organizations by providing OSH and environmental technical assistance throughout the acquisition process. • Perform ECP follow-up reviews in 2 	<ul style="list-style-type: none"> • Continue to implement FLS upgrades for towers. • Continue to implement energy efficient/conservation efforts. • Support the acquisition management organizations by providing OSH and environmental technical assistance throughout the acquisition process.

Program Plan FY2002 Performance Output Goals	Program Plan FY2003 Performance Output Goals	Key Events FY2004-2007 Performance Output Goals
<ul style="list-style-type: none"> follow-up reviews in 2 regions/centers. Reduce energy consumption in FAA administrative buildings by 4%. Continue to provide maintenance training for technicians responsible for FLS systems in ATCTs, initiate training for technicians responsible for FLS systems in ARTCCs, and continue FLS upgrades to ATCTs. 	<ul style="list-style-type: none"> regions/centers. Implement energy efficient/conservation efforts. Continue to provide maintenance training for technicians responsible for FLS systems in ATCTs and ARTCCs, and continue FLS upgrades to ATCTs. 	<ul style="list-style-type: none"> Complete ECP follow up reviews in all regions/centers.

Category 5: 5B02; Fuel Storage Tank Replacement and Monitoring;

Primary Goal: 4.1 **Secondary Goal(s): n/a**

Program Name and Outcome Goal	FY2001 Program Accomplishments/Status Performance Output Goals
National Airspace System (NAS) Facilities Occupational Safety and Health Administration (OSHA) & Environmental Standards – Fuel Storage Tank Replacement and Monitoring. Sustain fuel storage tank systems in FAA’s operational inventory to support continued operation of mission-critical activities, and to reduce or eliminate environmental damage to communities and the environment.	<ul style="list-style-type: none"> Investigated 381 beacon sites in 3 regions. Reviewed and updated Operations Management Plan from each region and headquarters. Replaced fuel storage piping at Farmington ARTCC.

Program Plan FY2002 Performance Output Goals	Program Plan FY2003 Performance Output Goals	Key Events FY2004-2007 Performance Output Goals
<ul style="list-style-type: none"> Conduct a pilot test of fuel storage tank optical monitoring system with remote monitoring maintenance capability. Finalize FAA Order 1050.16. Meld environmental compliance program goals into FY 2002 spend plan categories and into Fuel Storage Tank Operation Management Plans. 	<ul style="list-style-type: none"> n/a 	<ul style="list-style-type: none"> Provide life-cycle replacement/sustainment of fuel storage tank systems. Continue remediation efforts after fuel storage tank system replacements.

Category 5: 5B03; Hazardous Materials Management;

Primary Goal: 4.1 **Secondary Goal(s): n/a**

Program Name and Outcome Goal	FY2001 Program Accomplishments/Status Performance Output Goals
National Airspace System (NAS) Facilities Occupational Safety and Health Administration (OSHA) & Environmental Standards Compliance – Environmental Cleanup/Hazardous Materials (HAZMAT). Ensure compliance with statutory mandates and identify appropriate procedures for proactively managing HAZMAT to prevent future environmental contamination	<ul style="list-style-type: none"> Completed 4 remediation projects on the Environmental Protection Agency (EPA) Docket. Initiated contaminated soil and water removal at Area of Concern 29, FAA Technical Center (FAATC), Atlantic City, NJ.

and notices of violations. This program will improve the quality of human health and the environment by removing hazardous carcinogenic materials and materials that destroy living organisms (animal or plant).	<ul style="list-style-type: none"> • Completed environmental assessment of Annette Island, AK. • Developed regional environmental reporting requirements.
--	---

Program Plan FY2002 Performance Output Goals	Program Plan FY2003 Performance Output Goals	Key Events FY2004-2007 Performance Output Goals
<ul style="list-style-type: none"> • Perform surface debris removal at Annette Island, AK. • Initiate assessment of mercury contamination at FAATC, Atlantic City, NJ. • Perform environmental assessments at multiple ARSR sites. • Continue remedial actions for environmentally contaminated sites. • Complete contaminated soil and water remediation at area of Concern 29, Atlantic City, NJ. 	<ul style="list-style-type: none"> • Continue remedial assessments of contaminated areas at FAATC, Atlantic City, NJ. • Identify extent of contamination at Annette Island, AK. • Develop Federal Interagency Remediation Plan for Annette Island, AK. • Complete remediation activities at multiple ARSR sites. 	<ul style="list-style-type: none"> • Perform remediation of environmentally contaminated sites through 2007.